DVP-S330/S530D/S550D/S705D

RMT-D108A/D109A/D111A/D111E

SERVICE MANUAL

Self Diagnosis Supported model

US Model
DVP-S330/S530D/S550D

Canadian Model
DVP-S330/S530D/S550D

E Model
DVP-S530D

Hong Kong Model
DVP-S705D

Singapore Model
DVP-S705D

Photo: DVP-S330

SPECIFICATIONS

CD/DVD player

Laser	Semiconductor laser
Signal format system	NTSC

Audio characteristics

Frequency response	DVD (PCM 96 kHz): 2 Hz to 44 kHz (±1 dB)* DVD (PCM 48 kHz): 2 Hz to 22 kHz (±0.5 dB) CD: 2 Hz to 20 kHz (±0.5 dB)
Signal-to-noise ratio	More than 110 dB (LINE OUT (AUDIO 1, 2) connectors only)
Harmonic distortion	Less than 0.0025%
Dynamic range	More than 100 dB (DVD) More than 97 dB (CD)
Wow and flutter	Less than detected value (±0.001% W PEAK)

Outputs and inputs

	Jack type	Output level	Load impedance
LINE OUT (AUDIO 1, 2)	Phono jacks	2 Vrms (at 50 kilohms)	Over 10 kilohms
DIGITAL OUT (OPTICAL)	Optical output connector	–18 dBm	Wave length: 660 nm
DIGITAL OUT (COAXIAL)	Phono jack	0.5 Vp-p	75 ohms terminated
LINE OUT (VIDEO 1, 2)	Phono jacks	1.0 Vp-p	75 ohms, sync negative
S VIDEO OUT (1, 2)	4-pin mini DIN	Y: 1.0 Vp-p C: 0.286 Vp-p	75 ohms, sync negative 75 ohms terminated
COMPONENT VIDEO OUT (Y, PB/B-Y, PR/R-Y) (EXCEPT S330)	phono jacks	Y: 1.0 Vp-p PB/B-Y, PR/R-Y: 0.7 Vp-p	75 ohms, sync negative 75 ohms
PHONES (EXCEPT S330)	Phone jack	12 mW	32 ohms
5.1CH OUTPUT (EXCEPT S330)	Phono jacks	2 Vrms (at 50 kilohms)	Over 10 kilohms

General

Power requirements	120 V AC, 60 Hz
Power consumption	14 W (S330) 16 W (EXCEPT S330)
Dimensions (approx.)	430 × 95 × 305 mm (17 × 3 3/4 × 12 in.) (w/h/d) incl. projecting parts
Mass (approx.)	3.3 kg (7 lb 4 oz) (S330) 3.4 kg (7 lb 8 oz) (EXCEPT S330)
Operating temperature	41°F to 95°F (5°C to 35°C)
Operating humidity	5% to 90%

Supplied accessories

- Audio/Video/S-link connecting cord (1) (US, Canadian)
- Audio/Video connecting cord (1) (E, Hong Kong, Singapore)
- S video cable (1)
- Remote commander (remote) RMT-D108A (1) (S530D)
- Remote commander (remote) RMT-D109A (1) (S330)
- Remote commander (remote) RMT-D111A (1) (S550D)
- Remote commander (remote) RMT-D111E (1) (S705D)
- Size AA (R6) batteries (2)

* The signals from LINE OUT (AUDIO 1, 2) connectors and 5.1 ch L, R connectors (except S330) are measured. When you play the PCM sound tracks with 96 kHz sampling frequency, the output signals from the DIGITAL OUT (OPTICAL, COAXIAL) are converted to 48 kHz (sampling frequency).

Design and specifications are subject to change without notice.

CD/DVD PLAYER

MICROFILM

SONY®

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
6. Check the B+ voltage to see it is at the values specified.
7. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

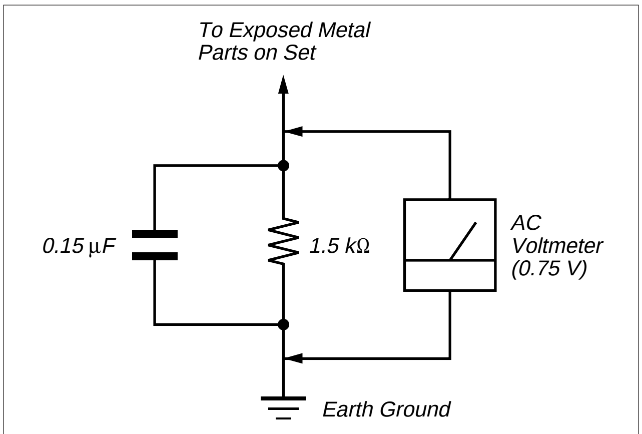

Fig. A Using AC voltmeter to check AC leakage

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 25 cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

CAUTION:
The use of optical instrument with this product will increase eye hazard.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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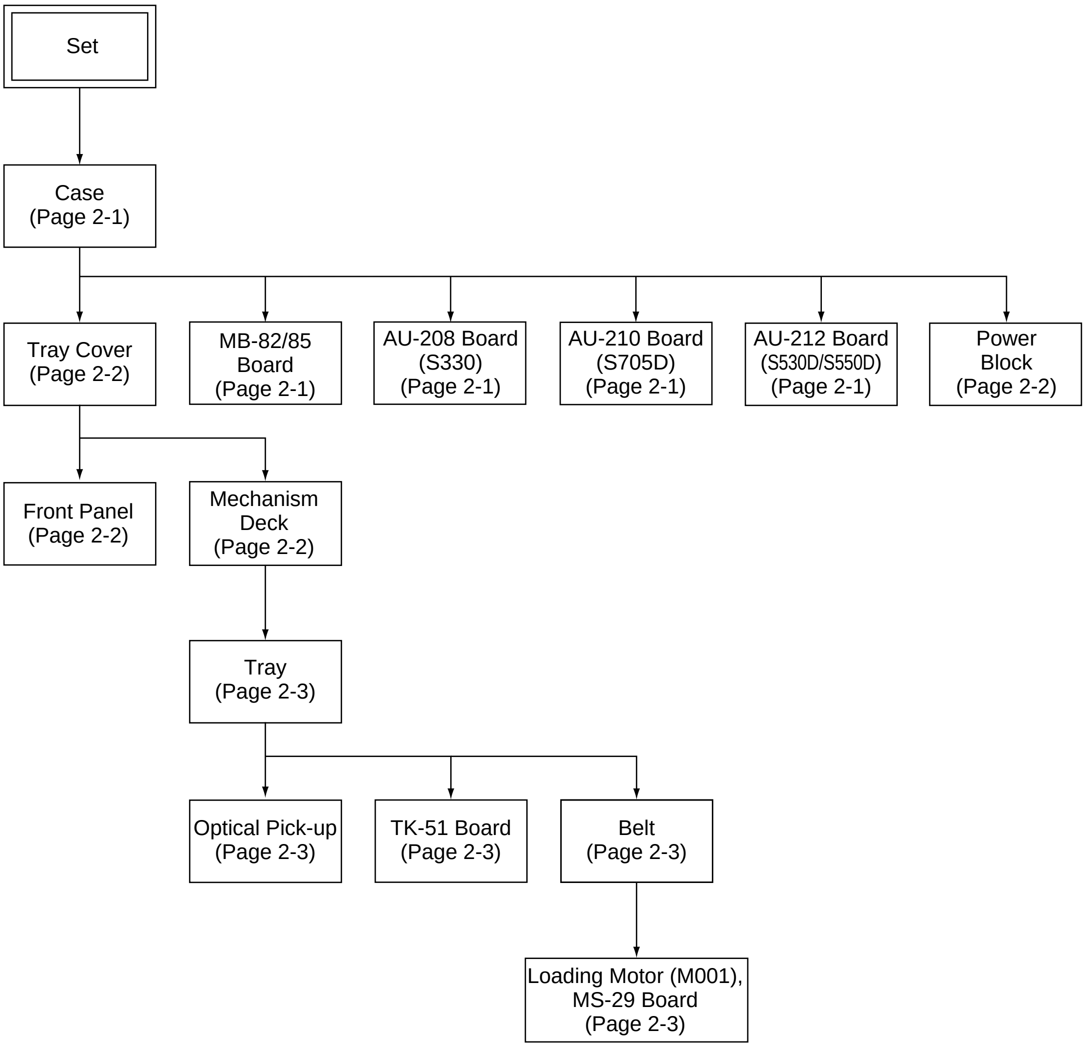
SERVICE NOTE

1. DISASSEMBLY

- This set can be disassembled in the order shown below.


Set
Case (Page 2-1)
Tray Cover (Page 2-2)
MB-82/85 Board (Page 2-1)
AU-208 Board (S330) (Page 2-1)
AU-210 Board (S705D) (Page 2-1)
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Belt (Page 2-3)
Loading Motor (M001), MS-29 Board (Page 2-3)

2. NOTE ON REMOVE THE CASE

1) Remove seven screws. (See Fig. 1)
2) Open the side of case. (See Fig. 1)
3) Remove the case as lift straight. (See Fig. 1)

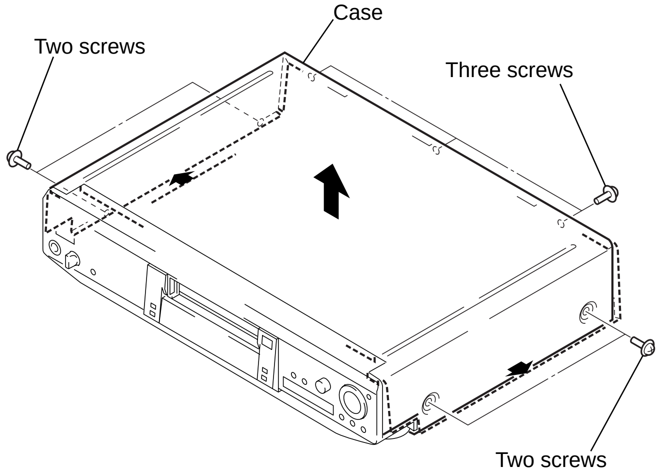

Case
Two screws
Three screws
Two screws

Fig. 1

3. DISC REMOVAL PROCEDURE (at POWER OFF)

1) Insert a tapering driver into the aperture of the unit bottom, and move the lever of chuck cam in the direction of the arrow Ⓐ. (See Fig. 2)
2) Draw out the tray in the direction of the arrow Ⓑ, and remove a disc. (See Fig. 2)

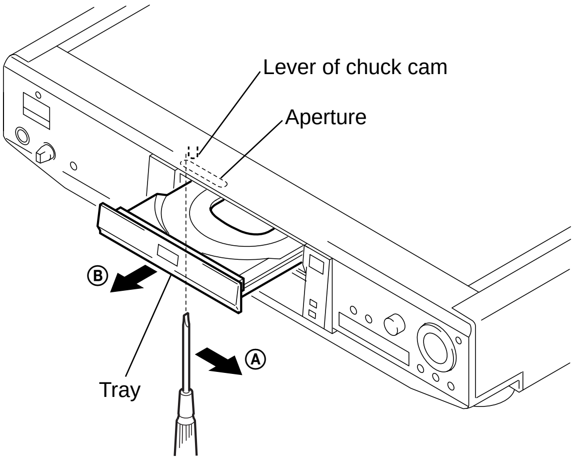

Lever of chuck cam
Aperture
Ⓑ
Ⓐ
Tray

Fig. 2

4. HOW TO SERVICE MB-82/85 BOARD

1) Remove the case from the set. (Refer to 2-1)
2) Remove the MB-82/85 board. (Refer to 2-2)
3) Set the MB-82/85 board as shown in Fig. 3.
   Note: Do not disconnect wiring, except FMA-7/8/9.

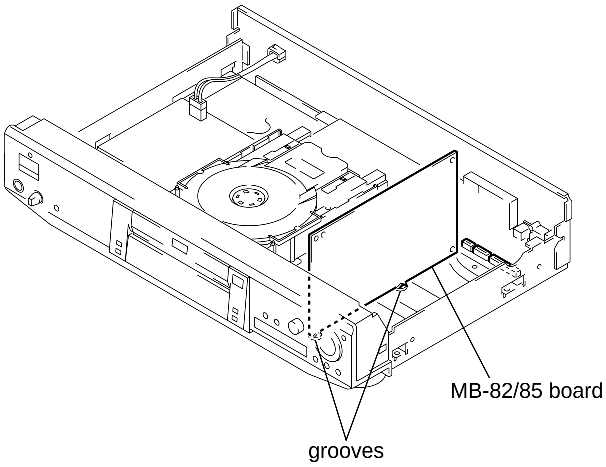

MB-82/85 board
grooves

Fig. 3

SECTION 1
GENERAL

This section is extracted from DVP-S550D instruction manual (3-865-641-11).

About This Manual

Conventions
- Instructions in this manual describe the controls on the player. You can also use the controls on the remote if they have the same or similar names as those on the player.
- The icons on the right are used in this manual:

Icon	Meaning
▮	Indicates that you can use only the remote to do the task.
💡	Indicates tips and hints for making the task easier.
DVD	Indicates the functions for DVD VIDEOs.
VIDEO CD	Indicates the functions for VIDEO CDs.
CD	Indicates the functions for Audio CDs.

This Player Can Play the Following Discs

	DVD VIDEOs		VIDEO CDs		Audio CDs	
Disc logo	DVD VIDEO		COMPACT disc DIGITAL VIDEO		COMPACT disc+ DIGITAL AUDIO TEXT	
Contents	Audio + Video		Audio + Video		Audio	
Disc size	12 cm	8 cm	12 cm	8 cm	12 cm	8 cm (CD single)
Play time	About 4 h (for single-sided DVD)/ about 8 h (for double-sided DVD)	About 80 min. (for single-sided DVD)/ about 160 min. (for double-sided DVD)	74 min.	20 min.	74 min.	20 min.

"DVD VIDEO" logo is a trademark.

This player conforms to the NTSC color system. You cannot play discs recorded in other color systems such as PAL or SECAM.

Region code of DVDs you can play on this unit

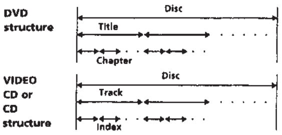
Your DVD player has a region code printed on the back of the unit and will only play DVDs that are labeled with identical region codes.
DVDs labeled ALL will be also played on this unit.
If you try to play any other DVD, the message "Playing this disc prohibited by area limits." will appear on the TV screen.
Depending on the DVD, no region code indication may be labeled even though playing the DVD is prohibited by the area limits.

Region code

Note on playback operations of DVDs and VIDEO CDs
Some playback operations of DVDs and VIDEO CDs may be intentionally fixed by software producers. Since this player plays DVDs and VIDEO CDs according to the disc contents the software producers designed, some playback features may not be available. Also refer to the instructions supplied with the DVDs or VIDEO CDs.

Terms for discs

- **Title**
  The longest sections of a picture or a music piece on a DVD; a movie, etc., for a picture piece on a video software; or an album, etc., for a music piece on an audio software. Each title is assigned a title number enabling you to locate the title you want.
- **Chapter**
  Sections of a picture or a music piece that are smaller than titles. A title is composed of several chapters. Each chapter is assigned a chapter number enabling you to locate the chapter you want. Depending on the disc, no chapters may be recorded.
- **Track**
  Sections of a picture or a music piece on a VIDEO CD or a CD. Each track is assigned a track number enabling you to locate the track you want.



- **Index (CD) / Video Index (VIDEO CD)**
  A number that divides a track into sections to easily locate the point you want on a VIDEO CD or a CD. Depending on the disc, no indexes may be recorded.
- **Scene**
  On a VIDEO CD with PBC functions, the menu screens, moving pictures and still pictures are divided into sections called "scenes." Each scene is assigned a scene number enabling you to locate the scene you want.

Note on PBC (Playback Control) (VIDEO CDs)
This player conforms to Ver. 1.1 and Ver. 2.0 of VIDEO CD standards. You can enjoy two kinds of playback according to the disc type.

Disc type	You can
VIDEO CDs without PBC functions (Ver. 1.1 discs)	Enjoy video playback (moving pictures) as well as music.
VIDEO CDs with PBC functions (Ver. 2.0 discs)	Play interactive software using menu screens displayed on the TV screen (PBC Playback), in addition to the video playback functions of Ver 1.1 discs. Moreover, you can play high-resolution still pictures, if they are included on the disc.

Discs that the player cannot play
The player cannot play discs other than the ones listed in the table on page 4. CD-R, CD-ROMs including PHOTO CDs, data sections in CD-EXTRAs, DVD-ROMs etc., cannot be played.

When playing DTS*-encoded CDs, excessive noise will be heard from the analog stereo outputs. To avoid possible damage to the audio system, the consumer should take proper precautions when the analog stereo outputs of the DVD player are connected to an amplification system. To enjoy DTS Digital Surround™ playback, an external 5.1-channel DTS Digital Surround™ decoder system must be connected to the digital output of the DVD player.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

* "DTS" is a trademark of Digital Theater Systems, Inc.

Precautions

On safety
- Caution – The use of optical instruments with this product will increase eye hazard.
- Should any solid object or liquid fall into the cabinet, unplug the player and have it checked by qualified personnel before operating it any further.

On power sources
- The player is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the player itself has been turned off.
- If you are not going to use the player for a long time, be sure to disconnect the player from the wall outlet. To disconnect the AC power cord (mains lead), grasp the plug itself; never pull the cord.
- Should the AC power cord (mains lead) need to be changed, have it done at a qualified service shop only.

On placement
- Place the player in a location with adequate ventilation to prevent heat build-up in the player.
- Do not place the player on a soft surface such as a rug that might block the ventilation holes on the bottom.
- Do not place the player in a location near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.

On operation
- If the player is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lenses inside the player. Should this occur, the player may not operate properly. In this case, remove the disc and leave the player turned on for about half an hour until the moisture evaporates.

On adjusting volume
- Do not turn up the volume while listening to a portion with very low level inputs or no audio signals. If you do, the speakers may be damaged when a peak level portion is played.

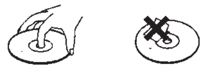
On cleaning
- Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

If you have any questions or problems concerning your player, please consult your nearest Sony dealer.

IMPORTANT NOTICE
Caution: The enclosed DVD player is capable of holding a still video image or On screen display image on your television screen indefinitely. If you leave the still video image or On screen display image displayed on your TV for an extended period of time you risk permanent damage to your television screen. Projection televisions are very susceptible.

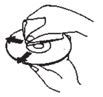
Notes on Discs

On handling discs
- To keep the disc clean, handle the disc by its edge. Do not touch the surface.
- Do not stick paper or tape on the disc.
  If there is glue (or a similar substance) on the disc, remove the glue completely before using the disc.



- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight as there can be considerable rise in temperature inside the car.
- After playing, store the disc in its case.

On cleaning
- Before playing, clean the disc with a cleaning cloth. Wipe the disc from the center out.



- Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.

Getting Started

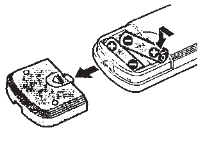
This section describes how to hook up the CD/DVD player to a TV (with audio/video input jacks) and/or an AV receiver (amplifier). You cannot connect this player to a TV which does not have a video input connector. Be sure to turn off the power of each component before making the connections.

Unpacking

Check that you have the following items:
- Audio/video/S-link connecting cord (1)
- S video cord (1)
- Remote commander (remote) RMT-D111A (1)
- Size AA (R6) batteries (2)

Inserting batteries into the remote

You can control the player using the supplied remote. Insert two Size AA (R6) batteries by matching the + and – on the batteries. When using the remote, point it at the remote sensor ▣ on the player.



💡 **You can control TVs and AV receivers using the supplied remote**
See page 60.

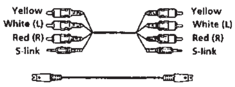
Notes
- Do not leave the remote in an extremely hot or humid place.
- Do not drop any foreign object into the remote casing, particularly when replacing the batteries.
- Do not expose the remote sensor to direct sunlight or lighting apparatuses. Doing so may cause a malfunction.
- If you will not use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

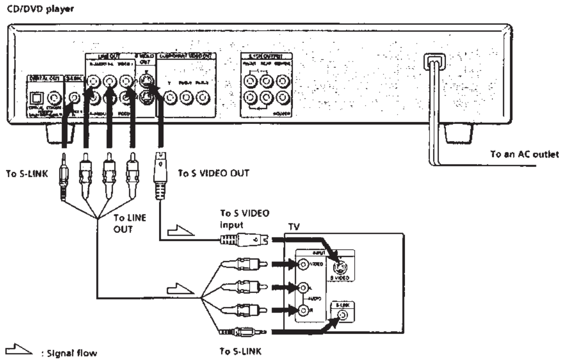
TV Hookups

This connection is for listening to the sound through TV speakers (2ch – L,R). Refer to the instructions supplied with the component to be connected.

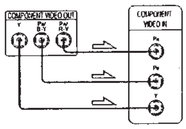
Required cords

Audio/video/S-link connecting cord (supplied) (1)
S video cord (supplied) (1)
When connecting the cords, be sure to match the color-coded cord to the appropriate jacks on the components: Yellow (video) to Yellow, Red (right) to Red and White (left) to White. Be sure to make connections firmly to avoid hum and noise.
If your TV has an S-link connector, you can control the CD/DVD player from the TV. Connect the TV via the S-LINK connector.
If your TV has an S video input connector, connect the component via the S VIDEO OUT connector using the S video cord. You will get a better picture.
Refer to the instructions supplied with the TV to be connected.

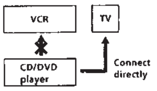

Yellow
White (L)
Red (R)
S-link
Yellow
White (L)
Red (R)
S-link


CD/DVD player
To an AC outlet
To S-LINK
To S VIDEO OUT
To LINE OUT
To S VIDEO input
TV
To S-LINK
: Signal flow

If you connect the player to a monitor or projector having component video input connectors that conform to output signals from the COMPONENT VIDEO OUT (Y, PB/B-Y, PR/R-Y) connectors on the player
Connect the component via the COMPONENT VIDEO OUT connectors using three video connecting cords (not supplied) of the same kind. You will get a better picture.


COMPONENT VIDEO OUT
Y
PB/B-Y
PR/R-Y
COMPONENT VIDEO IN
PR
PB
Y

Notes
- Refer to the instructions supplied with the component to be connected.
- Do not connect this player to a video deck. If you view the pictures on your TV after making the connections shown below, a picture noise may appear.


VCR
TV
CD/DVD player
Connect directly

- Depending on the TV or receiver (amplifier), sound distortion may occur because the audio output level is high. In this case, set "AUDIO ATT" in "AUDIO SETUP" to "ON" in the setup display. For details, see page 55.

Setups for the player

Some setups are necessary for the player depending on the TV or other components to be connected.
Use the setup display to change the various settings.
For details on using the setup display, see page 47.

- **To connect the player to a normal TV**
  In the setup display, set "TV TYPE" in "SCREEN SETUP" to "4:3 LETTER BOX" (default setting) or "4:3 PAN SCAN." For details, see page 51.
- **To connect the player to a TV having the WIDE MODE function**
  In the setup display, set "TV TYPE" in "SCREEN SETUP" to "16:9/4:3 WIDE MODE." For details, see page 51.
- **To connect the player to a wide-screen TV**
  In the setup display, set "TV TYPE" in "SCREEN SETUP" to "16:9/4:3 WIDE MODE." For details, see page 51.

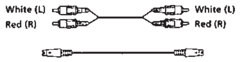
Receiver (Amplifier) Hookups

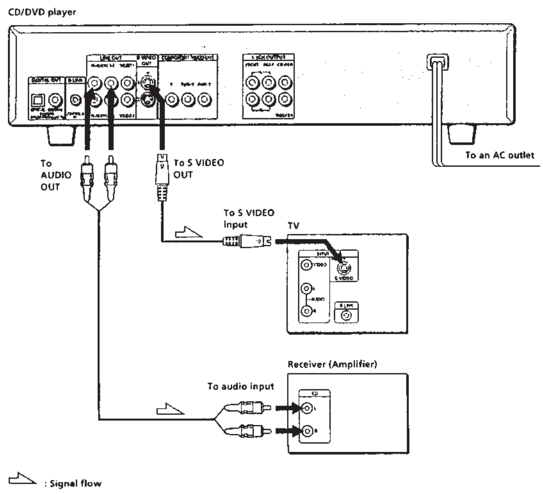
This connection is for listening to the sound through speakers connected to a receiver (amplifier such as an integrated stereo amplifier, a receiver having a built-in Dolby Pro Logic decoder, etc.). Refer to the instructions supplied with the component to be connected.
You can enjoy 5.1 channel surround sound by connecting a receiver (amplifier) with 5.1 channel inputs. See page 34.

You can enjoy surround when connecting front speakers only
You can use 3D sound imaging to create virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers (VES: Virtual Enhanced Surround). For details, see page 34.

Required cords

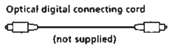
Audio connecting cord (not supplied) (1)
S video cord (supplied) (1)
When connecting the cords, be sure to match the color-coded cord to the appropriate jacks on the components: Red (right) to Red and White (left) to White. Be sure to make connections firmly to avoid hum and noise.


White (L)
Red (R)
White (L)
Red (R)

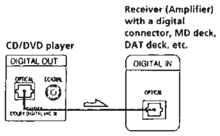

CD/DVD player
To an AC outlet
To AUDIO OUT
To S VIDEO OUT
To S VIDEO input
TV
Receiver (Amplifier)
To audio input
: Signal flow

If you have a digital component such as a receiver (amplifier) with a digital connector, DAT or MD
Connect the component via the DIGITAL OUT OPTICAL or COAXIAL connector using an optical or coaxial digital connecting cord (not supplied).
When you play a DVD, set "DIGITAL OUT" in "AUDIO SETUP" to "ON" and then set "DOLBY DIGITAL" to "D-PCM" and "DTS" to "OFF" in the setup display. (page 56)

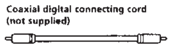
■ When using an optical digital connecting cord

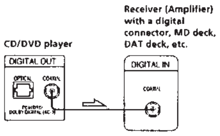

Optical digital connecting cord
(not supplied)

Take off the cap and plug in the optical digital connecting cord.


CD/DVD player
Receiver (Amplifier) with a digital connector, MD deck, DAT deck, etc.
DIGITAL OUT
OPTICAL
COAXIAL
DIGITAL IN
OPTICAL

■ When using a coaxial digital connecting cord


Coaxial digital connecting cord
(not supplied)

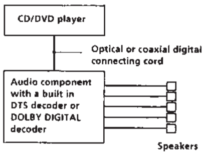

CD/DVD player
Receiver (Amplifier) with a digital connector, MD deck, DAT deck, etc.
DIGITAL OUT
OPTICAL
COAXIAL
DIGITAL IN
COAXIAL

Notes
- Refer to the instructions supplied with the component to be connected.
- You cannot make digital audio recordings of discs recorded in multi-channel surround format directly using an MD deck or DAT deck.

When you make the connections above, do not set "DOLBY DIGITAL" to "DOLBY DIGITAL" and "DTS" to "ON." If you do, a loud noise will suddenly come out from the speakers, affecting your ears or causing the speakers to be damaged.

If you have an audio component with a built in DTS decoder or Dolby Digital decoder
Connect the component via the DIGITAL OUT OPTICAL or COAXIAL connector using an optical or coaxial digital connecting cord (not supplied).

- **■ When you play a DVD or CD that are recorded in DTS format**
  Set "DIGITAL OUT" in "AUDIO SETUP" to "ON" and then set "DTS" to "ON" in the setup display. (page 56)
- **■ When you play a DVD that is recorded in Dolby Digital format**
  Set "DIGITAL OUT" in "AUDIO SETUP" to "ON" and then set "DOLBY DIGITAL" to "DOLBY DIGITAL" in the setup display. (page 56)


CD/DVD player
Optical or coaxial digital connecting cord
Audio component with a built in DTS decoder or DOLBY DIGITAL decoder
Speakers

Notes
- Refer to the instructions supplied with the component to be connected.
- **When you do not connect an audio component with a built in DTS decoder, do not set "DTS" to "ON."**
- **When you do not connect an audio component with a built in DOLBY DIGITAL decoder, do not set "DOLBY DIGITAL" to "DOLBY DIGITAL."**

Setups for the player

Some setups are necessary for the player depending on the components to be connected.
Use the setup display to change the various settings.
For details on using the setup display, see page 47.

- **To listen to the sound through speakers connected to a receiver (amplifier) having a digital connector or to output the sound to a digital component such as a DAT or MD deck**
  When you play a DVD, set "DIGITAL OUT" in "AUDIO SETUP" to "ON" and then set "DOLBY DIGITAL" to "D-PCM" and "DTS" to "OFF" in the setup display (page 56). These are the default settings.

5.1 Channel Surround Hookups

Some DVDs have a sound track with up to 5.1 channels recorded in Dolby* Digital (AC-3) format. Using a receiver (amplifier) having 5.1 channel inputs and the 5 (+1) speakers, you can enjoy more real audio presence in the comfort of your own home.
"5 channel" stands for the 2 front speakers (Left and Right), 2 rear speakers (Left and Right) and 1 center speaker. The "0.1 channel" (+1) stands for the subwoofer which outputs the bass.
Even if you have fewer than 5 (+1) speakers, the player distributes the output signal to the speakers appropriately.
This player has VIRTUAL 3D SURROUND mode.
You can use the 3D sound imaging to shift the sound of the rear speakers away from the actual speaker position (VIRTUAL REAR SHIFT) or to create 3 sets of virtual rear speakers from 1 set of actual rear speakers (VIRTUAL MULTI REAR). For details on the VIRTUAL 3D SURROUND mode, see page 34.

Speaker placement

For the best possible surround sound, we recommend the following conditions.

- Use higher performance speakers.
- Use rear and center speakers that match your front speakers in size and performance.
- All speakers should be the same distance from the listening position.
- Place the subwoofer between the front (L, R) speakers if possible.

Note
Do not place the center or rear speakers farther away from the listening position than the front speakers.

Required cords

Audio cords (not supplied)
Two for the 5.1CH OUTPUT FRONT and REAR jacks

White (L)
Red (R)
White (L)
Black

Monaural audio cords (not supplied)
Two for the 5.1CH OUTPUT CENTER and WOOFER jacks

S video cord (supplied)
One for the S VIDEO OUT jacks

Notes

- Do not connect the power cord to an AC outlet or press the POWER switch before completing all connections.
- The cord connectors should be fully inserted into the jacks. Loose connection may cause hum and noise.
- Jacks and plugs of the connecting cords are color-coded as follows:
  Red jacks and plugs: Right audio channel
  White jacks and plugs: Left audio channel
  You can use either red or white cables to connect the center speaker and subwoofer.
- When you connect the component via the DIGITAL OUT OPTICAL or COAXIAL connector using an optical or coaxial digital connecting cord (not supplied), see page 11.

Setups for the player

Some setups are necessary for the player depending on the components to be connected.
Use the setup display or the Control Menu display to change the various settings.
For details on using the setup display, see page 47.
For details on enjoying Digital Cinema Sound, see page 34.

- **To enjoy Dolby Digital surround sound by connecting the player to a receiver (amplifier) with 5.1 ch inputs**
  Set each speaker position or distance, etc. See page 58.

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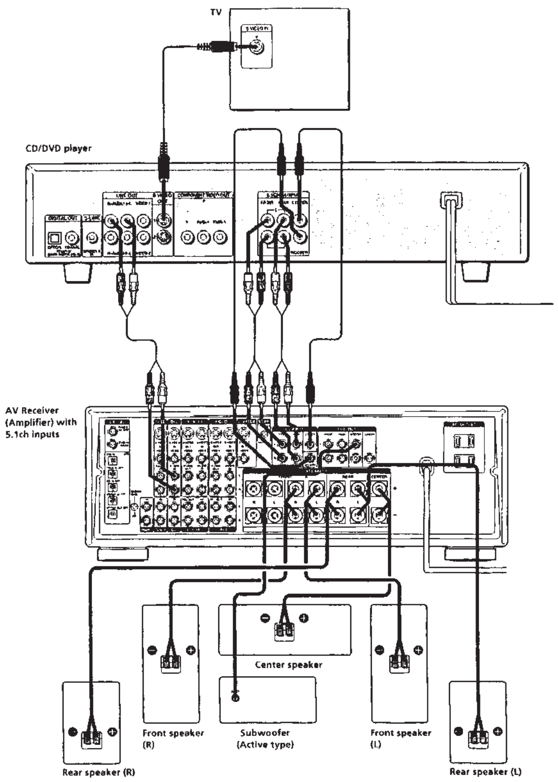
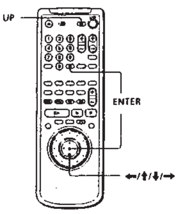
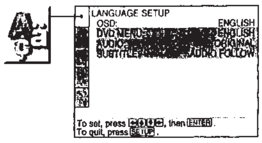


Selecting the Language for On-Screen Display

You can select the language for the setup display, the Control Menu display or the messages displayed on the screen. Default setting is "ENGLISH."

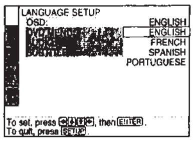


1 **Press SET UP and select "LANGUAGE SETUP" using ↑/↓, and then press ENTER.**



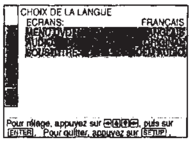
LANGUAGE SETUP
OSD: ENGLISH
DVD MENU: ENGLISH
AUDIO: ORIGINAL
SUBTITLE: AUDIO FOLLOW
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

2 **Select "OSD" using ↑/↓, then press → or ENTER.**



LANGUAGE SETUP
OSD: ENGLISH
ENGLISH
FRENCH
SPANISH
PORTUGUESE
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

3 **Select "FRENCH" using ↑/↓, then press ENTER.**



CHOIX DE LA LANGUE
ECRANS: FRANCAIS
MENU DVD: [illegible]
AUDIO: [illegible]
SOUS-TITRE: [illegible]
Pour réglage, appuyez sur ←↑↓→, puis sur ENTER. Pour quitter, appuyez sur SETUP.

To cancel using the setup display on the way
Press SET UP.

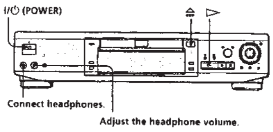
Note
The languages you can select are the ones displayed in step 2. For details, see page 50.

Playing Discs

This chapter describes how to play a DVD/CD/VIDEO CD.

Playing Discs DVD VIDEO CD CD

Depending on the DVD or VIDEO CD, some operations may be different or restricted. Refer to the instructions supplied with your disc.

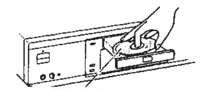


1 **Make settings on your TV.**
Turn on the TV and select the video input so that you can view the pictures from this player.

When using a receiver (amplifier)
Turn on the receiver (amplifier) and select the appropriate position so that you can listen to the sound from this player.

2 **Press I/⏻ (POWER) to turn on the player.**
The indicator (red) above the I/⏻ (POWER) button changes to green and the front panel display lights up.

3 **Press ≙, and place the disc on the disc tray.**

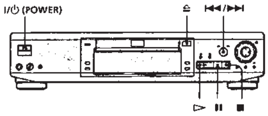

With the playback side facing down

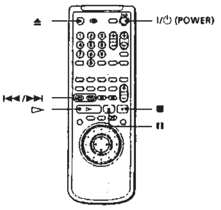
4 **Press ▷.**
The disc tray closes, and the player starts playback (continuous play). Adjust the volume on the TV or the receiver (amplifier).

After following Step 4
■When playing a DVD
A DVD menu or title menu may appear on the TV screen (see page 19).
■When playing a VIDEO CD
The menu screen may appear on the TV screen depending on the VIDEO CD. You can play the disc interactively, following the instructions on the menu screen. (PBC Playback, see page 20.)

You can turn on the player using the remote
Press I/⏻ (POWER) when the indicator above the I/⏻ (POWER) button on the front panel is lit in red.

Notes
- If you leave the player or the remote in pause or stop mode for 15 minutes, the screen saver image appears automatically. To make the screen saver image go away, press ▷. (If you want to set the screen saver function to off, see page 51.)
- The indicator above the I/⏻ (POWER) button lights up in red when the power is turned off.



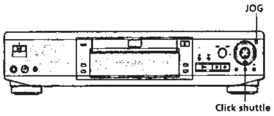


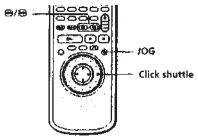
To	Operation
Stop	Press ■.
Pause	Press ❚❚.
Resume play after pause	Press ❚❚ or ▷.
Go to the next chapter, track or scene in continuous play mode	On the player: Turn ◀◀/▶▶ clockwise to select the chapter and then press ◀◀/▶▶. On the remote: Press ▶▶.
Go back to the preceding chapter, track or scene in continuous play mode	On the player: Turn ◀◀/▶▶ counterclockwise to select the chapter and then press ◀◀/▶▶. On the remote: Press ◀◀.
Stop play and remove the disc	Press ⏏.

You can play discs in various modes such as Program Play using the on-screen menu (Control Menu). For operations of Control Menu, see page 23.

Playing at Various Speeds/Frame by Frame DVD VIDEO CD CD

Using the click shuttle and the JOG button/indicator, you can play back a DVD/CD/VIDEO CD at various speeds or frame by frame. Each time you press JOG, it changes between shuttle mode and jog mode.



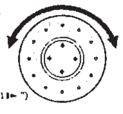


To change the playback speed (Shuttle mode)

Turn the click shuttle. The playback speed changes depending on the turning direction and angle as follows:

When you play back a DVD

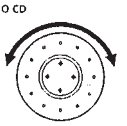
FF2▶▶ (about 30 times the normal speed)
⇕
FF1▶▶ (about 10 times the normal speed)
⇕
×2▶ (about twice the normal speed)
⇕
PLAY▶ (Normal speed)
⇕
SLOW1❚▶ (playback direction)
⇕
SLOW2❚▶ (playback direction
– slower than "SLOW1❚▶")
⇕
PAUSE❚❚
⇕
SLOW2◀❚ (opposite direction
– slower than "SLOW1◀❚")
⇕
SLOW1◀❚ (opposite direction)
⇕
×2◀ (about twice the normal speed)
⇕
FR1◀◀ (about 10 times the normal speed)
⇕
FR2◀◀ (about 30 times the normal speed)



If you turn the click shuttle quickly, the playback speed goes to FF2▶▶/FR2◀◀ at once.

When you play back a CD/VIDEO CD

FF2▶▶ (Faster than "FF1▶▶")
⇕
FF1▶▶
⇕
PLAY▶ (Normal speed)
⇕
SLOW1❚▶ (playback direction)*
⇕
SLOW2❚▶ (playback direction
– slower than "SLOW1❚▶")*
⇕
PAUSE❚❚
⇕
FR1◀◀
⇕
FR2◀◀ (Faster than "FR1◀◀")



* VIDEO CD Only

If you turn the click shuttle quickly, the playback speed goes to FF2▶▶/FR2◀◀ at once.

To return to continuous play
Press ▷.

To search for the picture using the button on the remote
Keep pressing ⊖ or ⊕. The playback speed is same as FR1 or FF1 when using the click shuttle.

Note
Depending on the DVD/VIDEO CD, you may not be able to do some of the operations described.

To play the disc frame by frame changing the playback speed (Jog mode) DVD VIDEO CD

1 **Press JOG.**
JOG lights up during jog mode. When you press JOG on the player, it pauses.

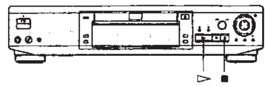
2 **Turn the click shuttle.**
Depending on the turning speed, the playback goes to frame-by-frame in the direction that the click shuttle is turned. If you turn the click shuttle with constant speed for a while, the playback speed goes to slow or normal.

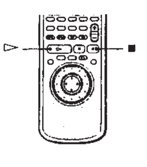
To return to continuous play
Press ▷.

Notes
- The JOG indicator shows the mode of the corresponding click shuttle. For example, when the JOG indicator on the remote is not lit, the remote click shuttle will remain in the shuttle mode even if the indicator on the player is lit.
- If you don't operate the click shuttle for about 20 seconds after pressing JOG, it returns to shuttle mode on the remote. On the player, it stays in jog mode.

Resuming Playback from the Point Where You Stopped the Disc (Resume Play) DVD VIDEO CD CD

The player stores the point where you stopped the disc and if "RESUME" appears on the front panel display. You can resume playback from that point.
As long as you do not open the disc tray, Resume Play is available even if you turn the power off.





1 **While playing a disc, press ■ to stop playback.**
"RESUME" appears in the front panel display and "When playing next time, disc restarts from point you stopped." appears on the TV screen.
If "RESUME" does not appear, Resume Play is not available.

2 **Press ▷.**
The player starts playback from the point where you stopped the disc in Step 1.

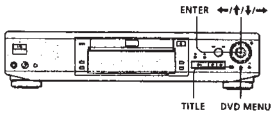
To play from the beginning of the disc
When the playing time appears on the front panel display before you start playing, press ■ to reset the playing time, then press ▷.

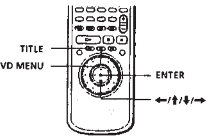
Notes
- Resume Play may not be available depending on the DVD.
- Resume Play is not available in Shuffle or Program Play mode.
- Depending on where you stopped the disc, the player may resume playback from a different point.
- The point where you stopped playing is cleared when:
  - you open or close the disc tray
  - you disconnect the AC power cord
  - you change the play mode
  - you start playback after selecting a title, chapter or track
  - you change the settings of "OSD," "DVD MENU," "AUDIO" or "SUBTITLE" in "LANGUAGE SETUP" in the setup display and "AUDIO" or "SUBTITLE" in the Control Menu display
  - you change the settings of "TV TYPE" in "SCREEN SETUP" in the setup display
  - you change the settings of "PARENTAL CONTROL" in "CUSTOM SETUP" in the setup display

Using the Menu for Each DVD DVD

Using the title menu

A DVD is divided into long sections of a picture or a music piece called "titles." When you play a DVD which contains several titles, you can select the title you want using the title menu.





1 **Press TITLE.**
The title menu appears on the TV screen. The contents of the menu vary from disc to disc.

2 **Press ←/↑/↓/→ to select the title you want to play.**
Depending on the disc, you can use the number buttons to select the title.

3 **Press ENTER.**
The player starts playing the selected title.

Notes
- Depending on the DVD, you may not be able to select the title.
- Depending on the DVD, a "title menu" may simply be called a "menu" or "title " in the instructions supplied with the disc. "Press ENTER." may also be expressed as "Press SELECT."

Using the DVD menu

Some DVDs allow you to select the disc contents using the menu. When you play these DVDs, you can select the language for the subtitles, the language for the sound, etc., using the DVD menu.

1 **Press DVD MENU.**
The DVD menu appears on the TV screen. The contents of the menu vary from disc to disc.

2 **Press ←/↑/↓/→ to select the item you want to change.**
Depending on the disc, you can use the number buttons to select the item.

3 **To change other items, repeat Step 2.**

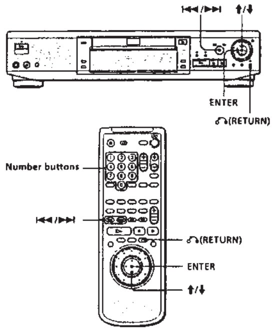
4 **Press ENTER.**

If you want to select the language for the DVD menu
Change the setting using "LANGUAGE SETUP" in the setup display. For details, see page 50.

Note
Depending on the DVD, a "DVD menu" may simply be called a "menu" in the instructions supplied with the disc.

Playing VIDEO CDs with PBC Functions (PBC Playback) VIDEO CD

When playing VIDEO CDs with PBC functions (Ver. 2.0 discs), you can enjoy simple interactive operations, operations with search functions, etc.
PBC Playback allows you to play VIDEO CDs interactively, following the menu screen on the TV screen. On this player, you can use the number buttons, ENTER, ⏮, ⏭, ↑/↓ and ↶(RETURN) during PBC Playback.


⏮/⏭
↑/↓
ENTER
↶(RETURN)
Number buttons
⏮/⏭
↶(RETURN)
ENTER
↑/↓

1 **Start playing a VIDEO CD with PBC functions, following Steps 1 to 4 in "Playing Discs" on page 15.**

2 **Select the item number you want.**
On the player
Press ↑/↓ to select the item number.
On the remote
Press the number button of the item you want.

3 **Press ENTER.**

4 **Follow the instructions on the menu screen for interactive operations.**
Refer to the instructions supplied with the disc, as the operating procedure may differ according to the VIDEO CD.

Going back to the menu screen
Press ↶, ⏮, or ⏭.

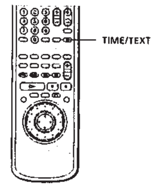
When playing VIDEO CDs with PBC functions
PBC playback starts automatically.

To cancel PBC playback of a VIDEO CD with PBC functions and play the disc in continuous play mode
There are two ways.
- Before you start playing, select the track you want using ⏮ or ⏭, then press ENTER or ▷.
- Before you start playing, select the track number using the number buttons on the remote, then press ENTER or ▷.
  "Play without PBC" appears on the TV screen and the player starts continuous play. You cannot play still pictures such as a menu screen.
  To return to PBC playback, press ■ twice then press ▷.

Note
Depending on the VIDEO CD, "Press ENTER" in Step 3 may be expressed as "Press SELECT" in the instructions supplied with the disc.

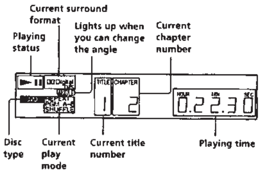
Using the Front Panel Display
DVD VIDEO CD CD

You can check information about the disc, such as the total number of the titles or the tracks or remaining time, using the front panel display.

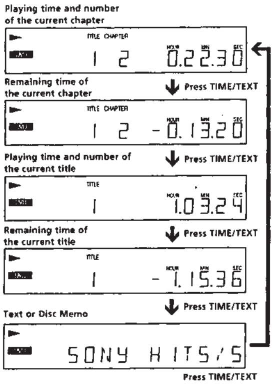


When playing back a DVD DVD

Display information while playing the disc


Current surround format
Playing status
Lights up when you can change the angle
Current chapter number
TITLE CHAPTER
1 2
HOUR MIN SEC
0.22.30
Disc type
Current play mode
Current title number
Playing time

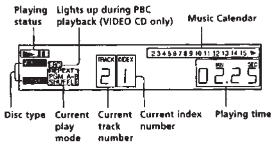
Checking the remaining time
Press TIME/TEXT.
Each time you press TIME/TEXT while playing the disc, the display changes as shown in the following chart.


Playing time and number of the current chapter
TITLE CHAPTER
1 2
HOUR MIN SEC
0.22.30
Remaining time of the current chapter
Press TIME/TEXT
1 2
-0.13.20
Playing time and number of the current title
Press TIME/TEXT
TITLE
1
1.03.24
Remaining time of the current title
Press TIME/TEXT
1
-1.15.36
Text or Disc Memo
Press TIME/TEXT
SONY HITS/5
Press TIME/TEXT

Notes
- Depending on the DVD, the chapter number or time may not appear or you may not be able to change the front panel display.
- While you are doing Shuffle Play or Program Play, the playing time of the title and the remaining time of the title are not displayed.

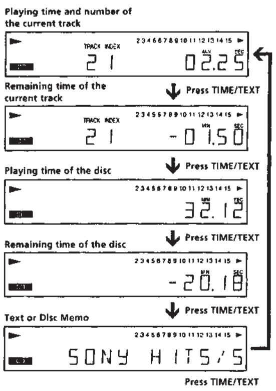
When playing back a CD/VIDEO CD VIDEO CD CD

Display information while playing a disc


Playing status
Lights up during PBC playback (VIDEO CD only)
Music Calendar
2 3 4 5 6 7 8 9 10 11 12 13 14 15
TRACK INDEX
2 1
MIN SEC
02.25
REPEAT
PGM A-B
SHUFFLE
Disc type
Current play mode
Current track number
Current index number
Playing time

When playing VIDEO CDs with PBC functions
The current scene number is displayed instead of the current track number and the current index number. In this case, the front panel display does not change when you press TIME/TEXT. If a TEXT or Disc Memo is recorded on the disc, the front panel display changes to "Text or Disc Memo" display when you press TIME/TEXT.

Checking the remaining time
Press TIME/TEXT.
Each time you press TIME while playing a disc, the display changes as shown in the following chart.


Playing time and number of the current track
2 3 4 5 6 7 8 9 10 11 12 13 14 15
TRACK INDEX
2 1
MIN SEC
02.25
Remaining time of the current track
Press TIME/TEXT
2 1
-01.50
Playing time of the disc
Press TIME/TEXT
32.12
Remaining time of the disc
Press TIME/TEXT
-20.18
Text or Disc Memo
Press TIME/TEXT
SONY HITS/5
Press TIME/TEXT

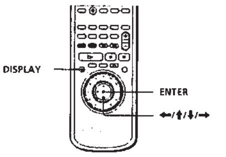
Note
While you are doing Shuffle Play, Program Play, or PBC playback, the playing time of the disc and the remaining time of the disc are not displayed.

Using Various Functions with the Control Menu

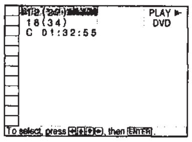
This chapter describes how to play discs in various modes and how to use the convenient features of the on-screen menu (Control Menu).

Using the Control Menu Display
DVD VIDEO CD CD

Using the Control Menu display, you can select the start point, label a disc, change the angles, adjust the picture, set for Digital Cinema Sound, etc.
The items are different depending on the kind of disc.
For details on each Control Menu display item, see pages 26 to 46.

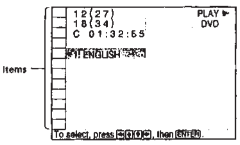

DISPLAY
ENTER
←/↑/↓/→

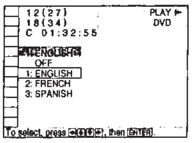
1 **Press DISPLAY to show the Control Menu display on the TV screen.**



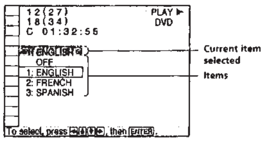
1 8 (3 4)
C 0 1 : 3 2 : 5 5
PLAY ▶
DVD
To select, press ←↑↓→, then ENTER.

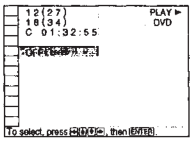
2 **Select the item you want using ↑/↓, then press → or ENTER.**





3 **Select the item you want using ↑/↓, then press ENTER.**





Note

Some Control Menu display items require operations other than selecting the setting. For details on these items, see the relevant pages.

To cancel using the Control Menu display on the way

Press ↶RETURN.

To display other items

Each time you press DISPLAY, the Control Menu display changes as follows:

→Control Menu display 1
↓
Control Menu display 2
(The items except the first three items from the top are changed to other items.)
↓
ADVANCED display (see page 41)
↓
Control Menu display off

💡 You can display some items using the remote

Some items can be displayed by pressing the button of the remote. In this case, only the item you selected is displayed. For the item and operations using the remote, see the pages of each item.

Control Menu Item List

TITLE (DVD only) (page 26)

CHAPTER (DVD only) (page 26)

TRACK (VIDEO CD/CD only) (page 26)

INDEX (VIDEO CD/CD only) (page 26)

SCENE (VIDEO CD during PBC playback only) (page 26)

You can search by selecting the title/chapter/track/index/scene.

TIME/TEXT (page 27, 28, 29)

TIME/MEMO (page 27, 28, 29)

You can check the playing time and remaining time of the current title/chapter/track and the total remaining time of the disc.
You can search by inputting the time code.
You can check the DVD TEXT or CD TEXT of the disc on the TV screen and the front panel display. When the disc is a VIDEO CD or the DVD TEXT or CD TEXT is not recorded on the disc, you can label the disc as a Disc Memo and check it.

AUDIO (page 31)

With DVDs recorded with multilingual sounds, you can select the language you want while playing the DVD.
With multiplex CDs or VIDEO CDs, you can select the sound from the right or left channel and listen to the sound of the selected channel through both the right and left speakers.

SUBTITLE (DVD only) (page 32)

With DVDs on which multilingual subtitles are recorded, you can change the subtitle language whenever you want while playing the DVD, and turn it on or off whenever you want.

ANGLE (DVD only) (page 33)

With DVDs on which various angles (multi-angles) are recorded, you can change the angles on the scene for which multi-angles are recorded.

VIRTUAL 3D SURROUND (page 34)

Select the mode to enjoy multi-channel surround sound such as Dolby Digital.
Even if you connect only front speakers, Virtual Enhanced Surround (VES) lets you enjoy 3D sound by using 3D sound imaging to create virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers.
When you connect 2 front speakers and 2 rear speakers, you can use the 3D sound imaging to shift the sound of the rear speakers away from the actual speaker position (VIRTUAL REAR SHIFT) or to create 3 sets of virtual rear speakers from 1 set of actual rear speakers (VIRTUAL MULTI REAR).
You can feel the more effective 3D sound when you connect a receiver (amplifier) with 5.1 channel inputs, 2 front speakers, 2 rear speakers, 1 center speaker and 1 subwoofer.

PROGRAM (page 36)

You can play the contents of the disc in the order you want by arranging the order of the titles, chapters or tracks on the disc to create your own program.

SHUFFLE (page 38)

You can have the player "shuffle" titles, chapters or tracks and play them in a random order. The playing order may differ from the previous "shuffling."

REPEAT (page 39)

You can play all the titles/tracks on a disc or a single title/chapter/track repeatedly.

A-B REPEAT (page 39)

You can play a specific portion of a title, chapter, or track repeatedly.

ADVANCED (page 41)

You can check the play information about the bit rate, bit rate history, the position where the disc is played (layer) or audio level.

DNR (DVD/VIDEO CD only) (page 43)

You can make the picture clearer by reducing the picture noise.

VIDEO EQ (DVD/VIDEO CD only) (page 43)

You can adjust the video output of the DVD or VIDEO CD from the player, not from the TV, to obtain the picture quality you want.

ANGLE VIEWER (DVD only) (page 45)

With DVDs on which various angles (multi-angles) for a scene are recorded, you can display all the angles recorded on the disc on the same screen, and start playback in continuous mode at the chosen angle directly.

STROBE PLAYBACK (DVD/VIDEO CD only) (page 45)

You can display 9 consecutive sections of the disc on the screen. In this case, the sections show still images.

TITLE VIEWER (DVD only) (page 46)

CHAPTER VIEWER (DVD only) (page 46)

TRACK VIEWER (VIDEO CD only) (page 46)

You can check the titles, chapters and tracks of the disc on the screen divided in 9 sections, and start playback from the chosen title, chapter or track.

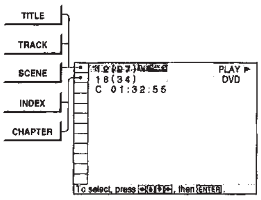
BOOKMARK (page 46)

You can have the player store specific portions of the disc in memory and play them immediately whenever you want without the need to search.

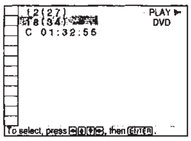
Searching for the Title/Chapter/Track/Index/Scene

DVD VIDEO CD CD

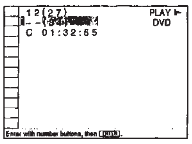
You can search by selecting the title/chapter/track/index/scene.
Select "TITLE," " CHAPTER," " TRACK", "INDEX" or "SCENE" after pressing DISPLAY.
When you play back a DVD, "TITLE" and " CHAPTER" are displayed.
When you play back a VIDEO CD/CD, "TRACK" and "INDEX" are displayed. When you play back a VIDEO CD with PBC functions, "SCENE" is displayed.



1 **Select "TITLE," "CHAPTER," "TRACK," "INDEX" or "SCENE" using ↑/↓.**
"✱✱(✱✱)" is highlighted. (✱✱ means optional number in this manual.) Number in parentheses indicate the total number of titles, chapters, tracks or indexes.



2 **Press → or ENTER.**
"✱✱(✱✱)" is changed to "— —(✱✱)".



3 **Select the number of the title, chapter, track, index or scene you want to search for using the number buttons, then press ENTER.**
The player starts searching.

To cancel selecting

Press ↶RETURN.

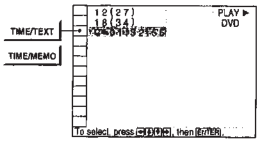
Notes

- The number of titles, chapters or tracks displayed is that of the titles, chapters or tracks recorded on a disc.
- The index numbers are not displayed during PBC playback of VIDEO CDs.

Checking the Playing Time and Remaining Time

DVD VIDEO CD CD

You can check the playing time and remaining time of the current title /chapter/track and the total remaining time of the disc.
Select "TIME/TEXT" or "TIME/MEMO" after pressing DISPLAY.
You can also check the DVD TEXT, CD TEXT and Disc Memo, and label the Disc Memo. See page 29.



When playing a DVD
■TIME/TEXT or TIME/MEMO

- C ✱✱:✱✱:✱✱ : Playing time of the current chapter
- C –✱✱:✱✱:✱✱ : Remaining time of the current chapter
- T ✱✱:✱✱:✱✱ : Playing time of the current title
- T –✱✱:✱✱:✱✱ : Remaining time of the current title

When playing a VIDEO CD (during PBC playback)
■TIME/MEMO

- ✱✱:✱✱ : Playing time of the current scene

When playing a VIDEO CD (in continuous play) or CD
■TIME/TEXT or TIME/MEMO

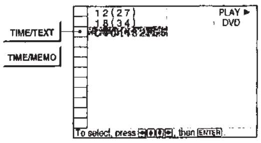
- T ✱✱:✱✱ : Playing time of the current track
- T –✱✱:✱✱ : Remaining time of the current track
- D ✱✱:✱✱ : Playing time of the current disc
- D –✱✱:✱✱ : Remaining time of the current disc

💡 You can display "TIME/TEXT" or "TIME/MEMO" display using the remote.

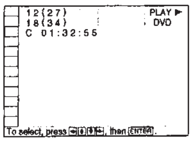
Press TIME/TEXT on the remote. Each time you press the button, the time information changes.

Selecting a Start Point Using the Time Code

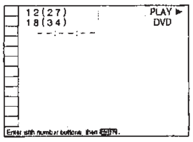
You can search by inputting the time code.
Select "TIME/TEXT" or "TIME/MEMO" after pressing DISPLAY.
The time code corresponds to the approximate actual playing time. For example, to search for a scene one hour past the beginning, input 1:00:00.


12(27)
18(34)
PLAY ▶
DVD
TIME/TEXT
TIME/MEMO
To select, press ←↑↓→, then ENTER.

1 **When playing a DVD**
Select "C ✱✱:✱✱:✱✱" (playing time of the current chapter).


12(27)
18(34)
C 01:32:55
PLAY ▶
DVD
To select, press ←↑↓→, then ENTER.

2 **Press ➡ or ENTER.**
Time code changes to "– – : – – : – –".


12(27)
18(34)
– – : – – : – –
PLAY ▶
DVD
Enter with number buttons, then ENTER.

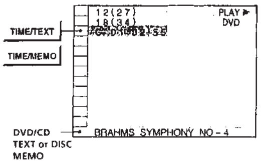
3 **Input the time code using the number buttons, then press ENTER.**
The player starts searching.

To cancel inputting
Press ↶RETURN.

You can display "TIME/TEXT" or "TIME/MEMO" display using the remote
Press TIME/TEXT on the remote.

Checking the Information of the Disc

You can check the DVD TEXT or CD TEXT of the disc on the TV screen and the front panel display. When the disc is a VIDEO CD or the DVD TEXT or CD TEXT is not recorded on the disc, you can label the disc as a Disc Memo and then check it.
DVD TEXT and CD TEXT are information recorded on the disc which you cannot change.
Select "TIME/TEXT" or "TIME/MEMO" after pressing DISPLAY. Then press TIME/TEXT on the remote until DVD/CD TEXT or Disc Memo is displayed.
The information is displayed at the bottom of the display.

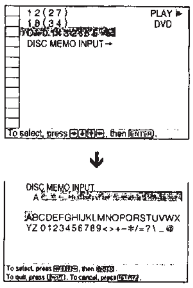

12(27)
18(34)
PLAY ▶
DVD
TIME/TEXT
TIME/MEMO
BRAHMS SYMPHONY NO – 4
DVD/CD TEXT or DISC MEMO

You can display "TIME/TEXT" or "TIME/MEMO" display using the remote
Press TIME/TEXT on the remote. To display DVD/CD TEXT or Disc Memo, press TIME/TEXT until DVD/CD TEXT or Disc Memo is displayed.

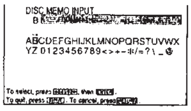
Labeling discs (Disc Memo)

When the disc is a VIDEO CD or the DVD TEXT or CD TEXT is not recorded on the disc, you can change the name of the disc by labeling it on the on-screen display and put a personal title on the disc. You can input up to 20 characters per disc each.
You can also have the player display the Disc Memo each time you select the disc. The Disc Memo can be anything you like, such as a title, musician's name, category or date of purchase.

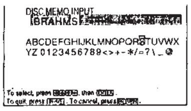
1 **Select "DISC MEMO INPUT➡" in "TIME/TEXT" or "TIME/MEMO"**
The DISC MEMO INPUT display appears.


12(27)
18(34)
PLAY ▶
DVD
DISC MEMO INPUT →
To select, press ←↑↓→, then ENTER.
DISC MEMO INPUT
A
ABCDEFGHIJKLMNOPQRSTUVWX
YZ 0123456789<>+–*/=?_@
To select, press ←↑↓→, then ENTER.
To quit, press INPUT. To cancel, press RETURN.

2 **Select the character by pressing ⬅/⬆/⬇/➡ or by turning the click shuttle.**
The selected character changes color.

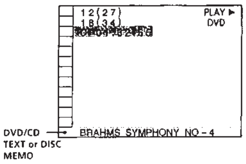

DISC MEMO INPUT
B
ABCDEFGHIJKLMNOPQRSTUVWX
YZ 0123456789<>+–*/=?_@
To select, press ←↑↓→, then ENTER.
To quit, press INPUT. To cancel, press RETURN.

3 **Press ENTER.**
If you selected a wrong character, press CLEAR.


DISC MEMO INPUT
BRAHMS
ABCDEFGHIJKLMNOPQRSTUVWX
YZ 0123456789<>+–*/=?_@
To select, press ←↑↓→, then ENTER.
To quit, press INPUT. To cancel, press RETURN.

4 **Repeat steps 2 and 3 to input other characters.**

5 **When you have entered all the characters for the disc label, press INPUT on the remote.**
The disc label is stored.


12(27)
18(34)
PLAY ▶
DVD
BRAHMS SYMPHONY NO – 4
DVD/CD TEXT or DISC MEMO

To correct the characters
- You can erase the last character one by one by pressing CLEAR.
- To insert or overwrite the characters:
  1. Move the cursor to the character you want to correct by pressing ⏮/⏭.
  2. Select the correct character by pressing ⬅/⬆/⬇/➡ or by turning the click shuttle.
  3. To insert the character, press ENTER.
     To overwrite, don't press ENTER but move the cursor by pressing ⏭.

You can display the Disc Memo input display using the remote
Press INPUT on the remote.

Erasing the Disc Memo

1 **Insert the disc you want to erase the Disc Memo from.**

2 **Select "DISC MEMO INPUT➡" in "TIME/TEXT" or "TIME/MEMO" to display the DISC MEMO INPUT display.**

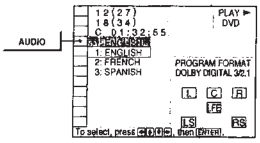
3 **Press CLEAR.**

You can display the "DISC MEMO INPUT➡" display by using the remote
Press TIME/TEXT on the remote.

Note
You can label up to 200 discs.

Changing the Sounds

With DVDs recorded with multilingual sounds, you can select the language you want while playing the DVD. With multiplex CDs or VIDEO CDs, you can select the sound from the right or left channel and listen to the sound of the selected channel through both the right and left speakers. In this case, the sound loses the stereo effect. For example, with a disc containing a song, the right channel may output the vocals and the left channel may output the instrumental. If you only want to hear the instrumental, you can select the left channel and hear it from both speakers.
Select "AUDIO" after pressing DISPLAY.


12(27)
18(34)
C 01:32:55
PLAY ▶
DVD
AUDIO
1: ENGLISH
2: FRENCH
3: SPANISH
PROGRAM FORMAT
DOLBY DIGITAL 3/2.1
L
C
R
LFE
LS
RS
To select, press ←↑↓→, then ENTER.

■AUDIO

When playing a DVD
Select the language. The languages you can select are different depending on the DVD. When 4 digits are displayed, they represent the language code. Select the language code from the list on page 69.

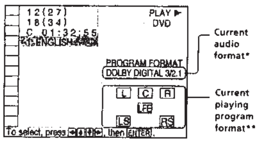
When playing a VIDEO CD or a CD
- STEREO (1/L, 2/R) : The standard stereo sound
- 1/L : The sound of the left channel (monaural)
- 2/R : The sound of the right channel (monaural)

You can display "AUDIO" display using the remote
Press AUDIO on the remote.

Notes
- Depending on the DVD, you may not be able to change the languages even if multilingual sounds are recorded on the DVD.
- While playing the CD/VIDEO CD, the standard stereo playback will be resumed when:
  - you open or close the disc tray
  - you turn the power off
- While playing the DVD, the sound may be changed when:
  - you open or close the disc tray
  - you change the title
- If the language is displayed as a 4 digit number, refer to the language code list on page 69.

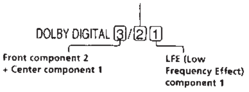
Displaying the audio information of the disc

When you select "AUDIO," the playing channels are displayed on the screen.
In Dolby Digital (AC-3) format, the signals from monaural to 5.1 channels can be recorded on a DVD. Depending on the DVD the number of the recorded channels may be different.


12(27)
18(34)
C 01:32:55
ENGLISH
PLAY ▶
DVD
PROGRAM FORMAT
DOLBY DIGITAL 3/2.1
L
C
R
LFE
LS
RS
To select, press ←↑↓→, then ENTER.
Current audio format*
Current playing program format**

* "PCM," "DTS" or "DOLBY DIGITAL" is displayed. In "DOLBY DIGITAL" case, the channels in the playing track are displayed by number as follows:

The case of Dolby Digital (AC-3) 5.1 ch:

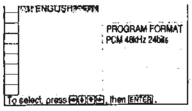

Rear component 2
DOLBY DIGITAL 3/2 1
Front component 2 + Center component 1
LFE (Low Frequency Effect) component 1

** The letters in the program format display mean the following:
L: Front (L)
R: Front (R)
C: Center (monaural)
LS: Rear (L)
RS: Rear (R)
S: Rear (monaural) – the rear component of the Dolby Surround processed stereo signal and the Dolby Digital signal.
LFE: – displayed only when the LFE (Low Frequency Effects) signal is playing

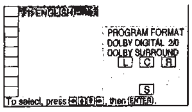
Changing the Sounds

The display examples are as follows:

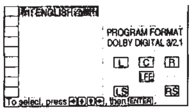
- PCM (stereo)



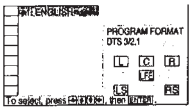
- Dolby Surround



- Dolby Digital (AC-3) 5.1ch



- DTS

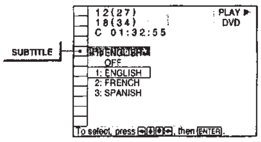


You can find Dolby Surround-encoded software by looking at the packaging

Use discs with the logo. In order to enjoy Dolby Digital (AC-3) playback you must use discs bearing this logo.

Displaying the Subtitles DVD

With DVDs on which subtitles are recorded, you can turn the subtitles on and off whenever you want while playing the DVD.
With DVDs on which multilingual subtitles are recorded, you can change the subtitle language whenever you want while playing the DVD, and turn it on or off whenever you want. For example, you can select the language you want to master and turn the subtitles on for better understanding.
Select "SUBTITLE" after pressing DISPLAY.



■SUBTITLE

Select the language. The languages you can select are different depending on the DVD. When 4 digits are displayed, they indicate the language code. Select the language code from the list on page 69.

You can display the "SUBTITLE" display by using the remote

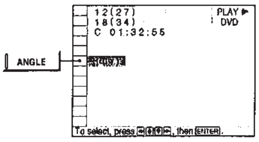
Press SUBTITLE on the remote. Each time you press the button, the item changes.

Notes

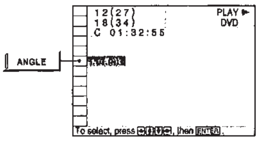
- When playing a DVD on which no subtitles are recorded, no subtitles appear.
- Depending on the DVD, you may not be able to turn the subtitles on even if they are recorded on it.
- Depending on the DVD, you may not be able to turn the subtitles off.
- If the language is displayed as a 4-digit number, refer to the language code list on page 69.
- The type and number of languages for subtitles vary from disc to disc.
- Depending on the DVD, you may not be able to change the subtitles even if multilingual subtitles are recorded on it.
- While playing the DVD, the subtitle may change when:
  - you open or close the disc tray
  - you change the title

Changing the Angles DVD

With DVDs on which various angles (multi-angles) for a scene are recorded, you can change the angles. For example, while playing a scene of a train in motion, you can display the view from either the front of the train, the left window of the train or from the right window without having the train's movement interrupted.
Select "ANGLE " after pressing DISPLAY. When the angles can be changed, the indicator of the "ANGLE" lights in green.

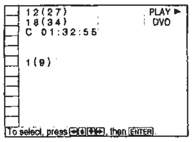


1 **Select "ANGLE."**



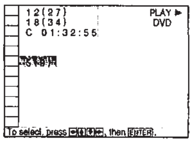
2 **Press ➡.**

The number of the angle is highlighted. The number in parentheses indicates the total number of angles.



3 **Select the number of the angles using the number buttons, then press ENTER.**

The angle is changed to the selected angle.



Notes

- The number of angles varies from disc to disc or from scene to scene. The number of angles that can be changed on a scene is that of angles recorded for that scene.
- Depending on the DVD, you may not be able to change the angles even if multi-angles are recorded on the DVD.

You can specify the angle beforehand

Specify the angle when "ANGLE" is not displayed on the front panel display. When a scene on which multi-angles are recorded comes, the angle is automatically selected.

You can select the angle using the remote

Press ANGLE on the remote. Each time you press the button, the angle changes.

You can display different angles simultaneously (ANGLE VIEWER)

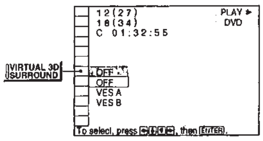
You can display all the angles recorded on the disc on the same screen, and start playback in continuous mode from the chosen angle directly. The angles are displayed on a screen divided in 9 sections. For details, see page 45.

Setting for Digital Cinema Sound DVD VIDEO CD CD

Select the mode to enjoy multi channel surround sound such as Dolby Digital.
Even if you connect only front speakers, Virtual Enhanced Surround lets you enjoy 3D sound by using 3D sound imaging to create virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers.
When you connect 2 front speakers and 2 rear speakers, use 3D sound imaging to shift the sound of the rear speakers away from the actual speaker position (VIRTUAL REAR SHIFT) or to create 3 sets of virtual rear speakers from 1 set of actual rear speakers (VIRTUAL MULTI REAR).
You can feel the more effective 3D sound when you connect a receiver (amplifier) with 5.1 channel inputs, 2 front speakers, 2 rear speakers, 1 center speaker and 1 subwoofer.
Select "VIRTUAL 3D SURROUND" after pressing DISPLAY. When you select the item except "OFF," the indicator of the "VIRTUAL 3D SURROUND " lights in green.

Note

To enjoy the original Dolby Digital (AC-3) sound through the 5.1 CH OUTPUT connectors, set each speaker position or distance, etc. For details on setting each speaker, see page 58.



■VIRTUAL 3D SURROUND

Select the desired item. For details on each item, see "Effects of each item."

- OFF
- VES A*
- VES B*
- NORMAL SURROUND
- ENHANCED SURROUND
- VIRTUAL REAR SHIFT
- VIRTUAL MULTI REAR

* These settings also effect the output from the LINE OUT (AUDIO 1, 2) connectors.

Note

The items displayed are different depending on the settings of "SPEAKER SETUP." (page 58).

- You can select only "OFF," "VES A" or "VES B" when you play back a DVD and set "NONE" in "REAR" in "SIZE" under "SPEAKER SETUP" in the set up display.
- "VIRTUAL 3D SURROUND" is not displayed when you play back a VIDEO CD or CD and set "NONE" in "REAR" in "SIZE" under "SPEAKER SETUP" in the set up display.

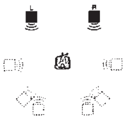
Effects of each item

OFF

Outputs all channel signals recorded on the disc. For example, outputs 2-channel signals for stereo sound of the CD or 5-channel signals for Dolby Digital sound of the DVD. When you connect fewer than 5 (+1) speakers, the player distributes the output signal for the missing speaker to other speakers appropriately.

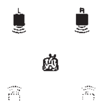
VES (Virtual Enhanced Surround) A

Uses 3D sound imaging to create virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers. The virtual speakers are reproduced as shown in the illustration below.



VES (Virtual Enhanced Surround) B

Uses 3D sound imaging to create virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers. The virtual speakers are reproduced as shown in the illustration below.



NORMAL SURROUND

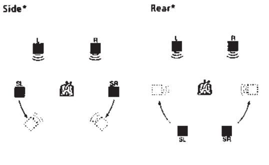
Software with 2 channel audio signals, is decoded with Dolby Pro Logic to create surround effects.

ENHANCED SURROUND

Provides a greater sense of presence from Pro Logic source with monaural rear channel sound. Produces a stereo like effect in the rear channels.

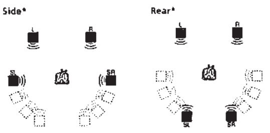
VIRTUAL REAR SHIFT

Uses 3D sound imaging to shift the sound of the rear speakers away from the actual speaker position. The virtual speakers are reproduced as shown in the illustration below. The shift position differs according to the setting of the rear speaker position.



VIRTUAL MULTI REAR

Uses 3D sound imaging to create an array of virtual rear speakers from a single pair of actual rear speakers. The virtual speakers are reproduced as shown in the illustration below. The position of the virtual rear speakers differs according to the setting of the rear speaker position.



* See page 58 for details on how to set the rear speaker position.

L: Front speaker (left)
R: Front speaker (right)
SL: Rear speaker (left)
SR: Rear speaker (right)
⬚: Virtual speaker

Notes

- Each item of "VIRTUAL 3D SURROUND" (except "NORMAL SURROUND" and "ENHANCED SURROUND") is effective on only discs on which a multi-channel soundtrack is recorded. Some discs do not have rear sound. In this case, you cannot get the 3D surround effect.
- When you select an item, the sound cuts off for a moment.
- When the playing signal does not contain the surround component, the effects may be difficult to hear even if you select "VES A" or "VES B."
- If you connect the front speakers only, "NORMAL SURROUND," "ENHANCED SURROUND," "VIRTUAL REAR SHIFT" and "VIRTUAL MULTI REAR" cannot be selected.
- Set the front speakers to form an equilateral triangle including the listening position, or the effects may be difficult to hear even if you select "VES A" or "VES B."
- When you select "VES A" or "VES B," the player outputs the audio signal from LINE OUT, DIGITAL OUT (OPTICAL, COAXIAL) or 5.1CH OUTPUT FRONT connectors. Incase of the signal from DIGITAL OUT (OPTICAL, COAXIAL), however, the surround effect will be heard only when you play DVD or VIDEO CD with "DOLBY DIGITAL" in "AUDIO SETUP"set to "D-PCM."
- When you play sound tracks with 96 kHz sampling frequency, be sure to select "OFF," or the output signals will be converted to 48 kHz (sampling frequency).
- When you connect a center speaker and a subwoofer, you can also hear the sound from the center speaker and the subwoofer. When you select "VES A" or "VES B," the player does not ouput the sound from the center speaker.

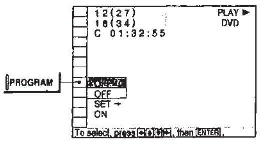
You can select the item of "VIRTUAL 3D SURROUND" using this button

Press VIRTUAL 3D SURROUND on the player. Each time you press the button, the item changes.

Creating Your Own Program (Program Play)

DVD VIDEO CD CD

You can play the contents of the disc in the order you want by arranging the order of the titles, chapters or tracks on the disc and create your own program. One program can be restored in the player and contain up to 99 titles, chapters and tracks.
Select "PROGRAM" after pressing DISPLAY. When you select "ON", the indicator of the "PROGRAM" lights in green.

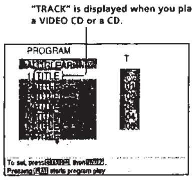


To select, press ⇦⇧⇩⇨, then ENTER.

■PROGRAM
- OFF: plays normal.
- SET➡: allows you to create your own program.
- ON: plays Program Play.

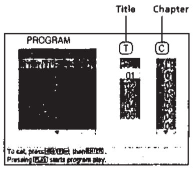
Creating the program

1 Select "SET➡" in "PROGRAM".
The programming display appears.



To set, press ⇦⇧⇩⇨, then ENTER.
Pressing PLAY starts program play.

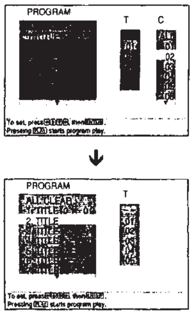
2 Press ➡.
"01" is highlighted. It is ready to set the first title or track for program.



To set, press ⇦⇧⇩⇨, then ENTER.
Pressing PLAY starts program play.

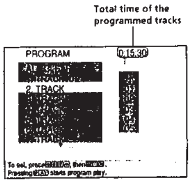
3 Select the title, chapter or track you want to program using ⬆/⬇, then press ENTER.
For example, select title or track 2.
(You can also use the number buttons and ENTER button to select. In this case, the selected number is displayed on the screen.)

■When playing a DVD
When both titles and chapters are recorded on the disc, select the title, then the chapter.

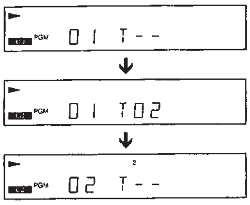


To set, press ⇦⇧⇩⇨, then ENTER.
Pressing PLAY starts program play.

■When playing a VIDEO CD or CD
Select the track you want to program.



To set, press ⇦⇧⇩⇨, then ENTER.
Pressing PLAY starts program play.



4 To program other titles, chapters or tracks, repeat Step 3.
The programmed titles, chapters or tracks are displayed from 2 in order.

5 Press ▷ to start Program Play.

To cancel Program Play
Press CLEAR.

To cancel programming
Press PROGRAM.

To change programming
1 In Step 2, select the program number of the title, chapter or track you want to change using ⬆/⬇.
2 Follow Step 3 for new programming.

To cancel the programmed order
To cancel all the titles, chapters or tracks in the programmed order, select "ALL CLEAR" in Step 2.
To cancel the selected program, select the program using ⬆/⬇ in Step 2 then press CLEAR, or select "- -" in Step 3 then press ENTER.

💡 The program remains even after the Program Play ends
When you press ▷, you can play the same program again.

💡 You can do Repeat Play or Shuffle Play of the programmed titles, chapters or tracks
During Program Play, press REPEAT or SHUFFLE. Or set "REPEAT" or "SHUFFLE" to "ON" in the Control Menu display.

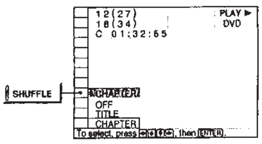
💡 You can display "PROGRAM" display using the remote
Press PROGRAM.

Notes
- The number of titles, chapters or tracks displayed are that of the titles, chapters or tracks recorded on a disc.
- The program is canceled when:
  - – you open or close the disc tray
  - – you turn the power off
- You may not be able to do Program Play depending on the DVD.
- While you are doing PBC playback, you cannot set a program unless you stop playback once.

Playing in Random Order (Shuffle Play)

DVD VIDEO CD CD

You can have the player "shuffle" titles or tracks and play them in a random order. The playing order may differ from the previous "shuffling."
Select "SHUFFLE" after pressing DISPLAY. When you select "ON", the indicator of the "SHUFFLE " lights in green.



To select, press ⇦⇧⇩⇨, then ENTER.

■SHUFFLE
Selects the setting of Shuffle Play.

When playing a DVD and when Program Play is set to OFF
- OFF: does not play a disc in random order.
- TITLE: has the player "shuffle" titles and play in a random order.
- CHAPTER: has the player "shuffle" chapters and play in a random order.

When playing a VIDEO CD, CD or DVD (when Program Play is set to ON)
- OFF: does not play a disc in random order.
- ON: has the player "shuffle" titles or tracks and play in a random order.

When playing a VIDEO CD or CD (when Program Play is set to OFF)
- OFF: does not play a disc in random order.
- TRACK: has the player "shuffle" tracks and play in a random order.

After selecting the item of "SHUFFLE", press ▷.
The player starts Shuffle Play.

To cancel Shuffle Play
Press CLEAR.

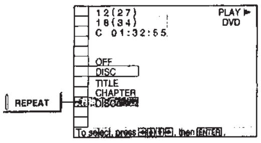
💡 You can display the "SHUFFLE" display by pressing the button
Press SHUFFLE.

Notes
- Shuffle Play is canceled when:
  - – you open or close the disc tray
  - – you turn the power off
- You may not be able to do Shuffle Play depending on the DVD.
- Up to 200 chapters in a disc can be played in a random order when "CHAPTER" is selected.

Playing Repeatedly (Repeat Play)

DVD VIDEO CD CD

You can play all the titles/tracks on a disc or a single title/chapter/track.
In Shuffle or Program Play mode, the player repeats the titles or tracks in the shuffled or programmed order.
You cannot do Repeat Play during PBC playback of VIDEO CDs (page 20).
You may not be able to do Repeat Play depending on the DVD.
Select "REPEAT" after pressing DISPLAY. When you select "ON", the indicator of the "REPEAT " lights in green.



To select, press ⇦⇧⇩⇨, then ENTER.

■REPEAT
Selects the setting of Repeat Play.
When playing a DVD and when Program Play and Shuffle Play are set to OFF
- OFF: does not play repeatedly.
- DISC: repeats all the titles.
- TITLE: repeats the current title on a disc.
- CHAPTER: repeats the current chapter.

When playing a VIDEO CD/CD and when Program Play and Shuffle Play are set to OFF
- OFF: does not play repeatedly.
- DISC: repeats all the tracks on a disc.
- TRACK: repeats the current track.

When Program Play or Shuffle Play is set to ON
- OFF: does not play repeatedly.
- ON: repeats Program Play or Shuffle Play.

To cancel Repeat Play
Press CLEAR.

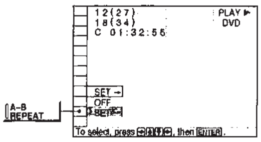
💡 You can display the "REPEAT" display by pressing the button
Press REPEAT.

Note
Repeat play is canceled when you turn the power off.

Repeating a Specific Portion (A↔B Repeat)

DVD VIDEO CD CD

You can play a specific portion of a title, chapter, track repeatedly. This is useful when you want to memorize lyrics.
During PBC Playback of VIDEO CDs (page 20), this function is available only while playing moving pictures.
You may not be able to do A↔B Repeat Play depending on the DVD.
Select "A-B REPEAT" after pressing DISPLAY. During A↔B Repeat Play, the indicator of the "A-B REPEAT" lights in green.

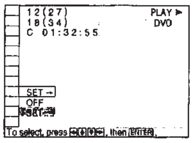


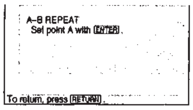
To select, press ⇦⇧⇩⇨, then ENTER.

■A-B REPEAT
- SET➡: sets the A and B points.
- OFF: does not play a specific portion of a title/chapter/track repeatedly.

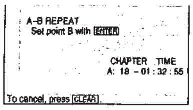
Setting a portion for A↔B repeat

1 Select "SET➡" in "A-B REPEAT."
The A↔B REPEAT setting display appears.

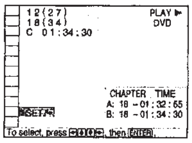

12(27)
18(34)
C 01:32:55
PLAY ▶
DVD
SET →
OFF
SET→
To select, press ⇦⇧⇩⇨, then ENTER.


A–B REPEAT
Set point A with ENTER.
To return, press RETURN.

2 **During playback, when you find the starting point (point A) of the portion to be played repeatedly, press ENTER.**
The starting point (point A) is set.


A–B REPEAT
Set point B with ENTER
CHAPTER TIME
A: 18 – 01 : 32 : 55
To cancel, press CLEAR.

3 **When you reach the ending point (point B), press ENTER again.**
The setting points are displayed and the player starts repeating this specific portion.
"A-B" appears on the front panel display during A↔B repeat play.

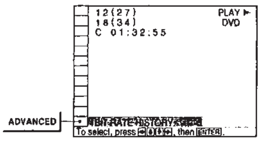

12(27)
18(34)
C 01:34:30
PLAY ▶
DVD
CHAPTER TIME
A: 18 – 01 : 32 : 55
B: 18 – 01 : 34 : 30
SET→
To select, press ⇦⇧⇩⇨, then ENTER.

To cancel A↔B Repeat Play
Press CLEAR.

Notes
- You can set A↔B Repeat on only one specific portion.
- A↔B Repeat is canceled when:
  - you open or close the disc tray
  - you turn the power off
- When you set A↔B Repeat, the settings for Shuffle Play and Program Play are canceled.
- You may not be able to set A↔B Repeat, depending on the scene of the DVD or the VIDEO CD.

Checking the Play Information 🅘 DVD VIDEO CD CD

You can check the play information on the bit rate, bit rate history, the portion where the disc is played (layer) or audio level.
While playing a disc, the approximate bit rate of the playback picture is always displayed by Mbps (Mega bit per second) and the audio by Kbps (Kilo bit per second).
Select "ADVANCED" after pressing DISPLAY.


12(27)
18(34)
C 01:32:55
PLAY ▶
DVD
ADVANCED
BIT RATE HISTORY
To select, press ⇦⇧⇩⇨, then ENTER.

■ADVANCED

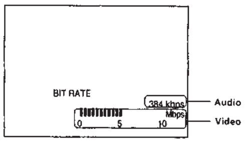
When playing a DVD
- BIT RATE: displays bit rate.
- BIT RATE HISTORY: displays bit rate and bit rate history.
- LAYER: displays layer and the point picked up.
- AUDIO LEVEL: displays audio level of each output.
- OFF: turns off ADVANCED display.

When playing a VIDEO CD/CD
- AUDIO LEVEL: displays audio level of each output.
- OFF: turns off ADVANCED display.

You can display the ADVANCED display directly
Press DISPLAY until the the ADVANCED display appears.

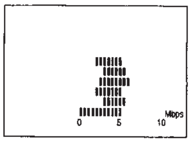
Displays of each item

BIT RATE


BIT RATE
384 kbps
Mbps
0
5
10
Audio
Video

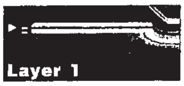
Bit rate refers to the amount of video/audio data per second in a disc. The higher the bit rate is, the larger the amount of data. When the bit rate level is high, there is a large amount of data. However, this does not always mean that you can get higher quality pictures or sounds.

BIT RATE HISTORY



Indicates the transition of bit rate of the playback picture for a period up to the present.

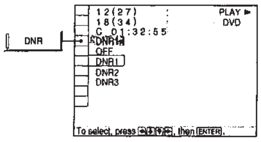
LAYER



Indicates where the disc is played. When the DVD has dual-layer, the player indicates which layer is being read. For details on layer, see page 67.

Reducing the Picture Noise (DNR: Digital Video Noise Reduction) 🅘 DVD VIDEO CD

You can make the picture clearer by reducing the picture noise of the background.
Select "DNR" after pressing DISPLAY.
When you select "DNR1," "DNR2," or "DNR3," the indicator of the "DNR" lights in green.

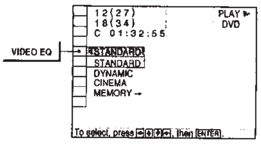

DNR
12(27)
18(34)
C 01:32:55
PLAY ▶
DVD
DNR1
OFF
DNR1
DNR2
DNR3
To select, press ⇦⇧⇩⇨, then ENTER.

■DNR
As the value increases, the picture noise will be reduced. However, afterimages may increase.
- OFF: turns off the DNR function
- DNR1
- DNR2
- DNR3

Notes
- Depending on the disc, the effect may be difficult to tell.
- If the afterimages appear on the TV screen, set the noise reduction function to off on your TV. Then set "DNR" to "OFF" on the Control Menu display.

Adjustments for Playback Picture (VIDEO EQ: Video Equalizer) 🅘 DVD VIDEO CD

You can adjust the video output of the DVD or VIDEO CD from the player, not from the TV, to obtain the picture quality you want. Choose one of the video modes whichever best suits the program you are watching.
When you select "MEMORY➡" in a menu item, adjust the value.
Select "VIDEO EQ" after pressing DISPLAY.


VIDEO EQ
12(27)
18(34)
C 01:32:55
PLAY ▶
DVD
STANDARD
STANDARD
DYNAMIC
CINEMA
MEMORY →
To select, press ⇦⇧⇩⇨, then ENTER.

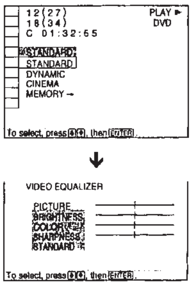
■VIDEO EQ
Selects the setting of video control.
- STANDARD: displays a standard picture
- DYNAMIC: emphasizes the black level and so produces a bolder dynamic picture
- CINEMA: displays a finely detailed picture
- MEMORY➡: adjusts the picture items

To adjust the picture items

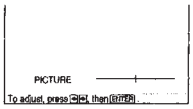
You can adjust the following picture items individually.
- PICTURE
- BRIGHTNESS
- COLOR
- SHARPNESS

Adjustments for Playback Picture (VIDEO EQ: Video Equalizer)

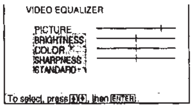
1 **Select "MEMORY➡" in "VIDEO EQ."**
The video control display appears.


12(27)
18(34)
C 01:32:55
PLAY ▶
DVD
STANDARD
STANDARD
DYNAMIC
CINEMA
MEMORY →
To select, press ⬆⬇, then ENTER.
VIDEO EQUALIZER
PICTURE
BRIGHTNESS
COLOR
SHARPNESS
STANDARD
To select, press ⬆⬇, then ENTER.

2 **Select the picture item you want to adjust using ⬆/⬇, then press ENTER.**
The adjustment bar of the selected item appears.
To cancel adjusting the picture halfway, press ↩RETURN.


PICTURE
To adjust, press ⬅➡, then ENTER.

3 **Adjust the selected picture item using ⬅/➡, then press ENTER.**


VIDEO EQUALIZER
PICTURE
BRIGHTNESS
COLOR
SHARPNESS
STANDARD
To select, press ⬆⬇, then ENTER.

4 **To adjust other items, repeat Steps 2 and 3.**

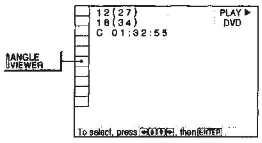
To cancel adjusting the picture
Press ↩RETURN.

To reset the picture items
Select "STANDARD" in "MEMORY➡."

Note
Only one setting of the picture items you adjusted in "MEMORY➡" can be stored. When you adjust the items, new setting erases the setting adjusted before.

Displaying Different Angles Simultaneously DVD

With DVDs on which various angles (multi-angles) for a scene are recorded, you can display all the angles recorded on the disc on the same screen, and start playback in continuous mode at the chosen angle directly. The angles are displayed on a screen divided in 9 sections. Select "ANGLE VIEWER" after pressing DISPLAY. When you can select "ANGLE VIEWER", the indicator of the "ANGLE VIEWER" lights in green.


12(27)
18(34)
C 01:32:55
PLAY ▶
DVD
ANGLE VIEWER
To select, press ⬅⬆⬇➡, then ENTER.

To select the one angle
Select the angle using ⬅/⬆/⬇/➡, then press ENTER. The selected angle only is displayed.

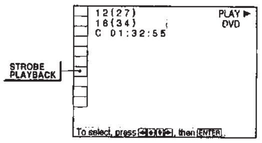
To cancel displaying multi-angles
Press ↩RETURN.

You can check the number on the front panel display
The number of the angle you select is displayed on the front panel display.

Notes
- Depending on the DVD, you may not be able to change the angles even if multi-angles are recorded on the DVD.
- When a scene for which various angles (multi-angles) are not recorded comes while displaying different angles simultaneously, the player returns to the normal play.

Dividing a Track into 9 Sections (Strobe Play) DVD VIDEO CD

You can display 9 consecutive sections of the disc on the screen. In this case, the sections show still images. Select "STROBE PLAYBACK" after pressing DISPLAY.


12(27)
18(34)
C 01:32:55
PLAY ▶
DVD
STROBE PLAYBACK
To select, press ⬅⬆⬇➡, then ENTER.

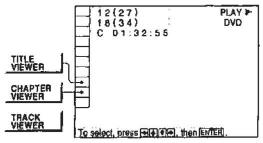
To cancel watching the strobe play
Press ↩RETURN.

During pause mode, 9 still images around the pause position are displayed
It is convenient to see the still images around the specific portion.

Note
Depending on the disc, there are some scenes you may not be able to watch with the strobe play.

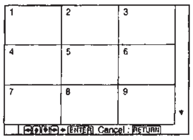
Scanning the Title, Chapter and Track DVD VIDEO CD

You can check the top picture of titles, chapters and tracks of the disc on a screen divided in 9 sections, and start playback from the chosen title ,chapter or track.
Select "TITLE VIEWER"(DVD only), "CHAPTER VIEWER"(DVD only) or "TRACK VIEWER"(VIDEO CD only) after pressing DISPLAY.


12(27)
18(34)
C 01:32:55
PLAY ▶
DVD
TITLE VIEWER
CHAPTER VIEWER
TRACK VIEWER
To select, press ⬅⬆⬇➡, then ENTER.

To start playback from the selected picture
Select the picture using ⬅/⬆/⬇/➡, then press ENTER. The playback starts from the selected picture.

When there are over 9 titles or chapters
▼ appears at the right bottom of the screen. Use ⬇ to scroll and display next titles or chapters.


1
2
3
4
5
6
7
8
9
▼
⬅⬆⬇➡ + ENTER Cancel : RETURN

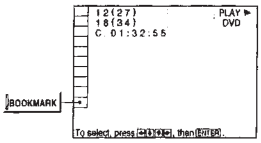
You can check the number on the front panel display
The number of the title, chapter and track you select is displayed on the front panel display.

To cancel scanning the title, chapter and track
Press ↩RETURN.

Notes
- Depending on the disc, you may not be able to scan the title, chapter and track.
- You cannot scan the title, chapter and track on a VIDEO CD during PBC playback.

Setting and Selecting Favorite Scene (Bookmark) DVD VIDEO CD CD

You can have the player store specific portions of the disc in memory and play them immediately whenever you want without the need to search (Bookmark). Up to 9 bookmarks per disc for up to 200 discs can be stored in memory.
Select "BOOKMARK" after pressing DISPLAY. When you play the disc which has bookmarks, the indicator of the "BOOKMARK" lights in green.


12(27)
18(34)
C 01:32:55
PLAY ▶
DVD
BOOKMARK
To select, press ⬅⬆⬇➡, then ENTER.

To start playback from the selected picture
Select the picture using ⬅/⬆/⬇/➡, then press ENTER. The playback starts from the selected picture.

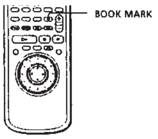
To cancel scanning the bookmark pictures
Press ↩RETURN.

To reset the bookmark
Select the the point on which you want to reset the bookmark using ⬅/⬆/⬇/➡, then press CLEAR.

To reset the all bookmarks of the player
Select "BOOKMARK RESET➡" under the "CUSTOM SETUP" in the setup display. For details on resetting all the bookmark of the player, see page 52.

Setting the bookmark

During playback, when you find the scene to be bookmarked, press BOOK MARK on the remote.
The bookmark is set.



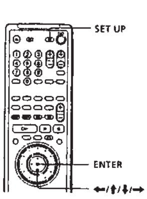
Settings and Adjustments

This chapter describes how to set and how to adjust using the on-screen SET UP menu. Most settings and adjustments are required to be set when you first use the player.
This chapter also describes how to set the remote for controlling the TV or the AV receiver (amplifier).

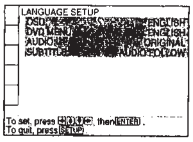
Using the Setup Display DVD VIDEO CD CD

Using the setup display, you can do the initial setup, adjusting the picture and sound quality, setting the various outputs, etc. You can also set a language for the subtitles and the setup display, limit playback by children, etc.
For details on each setup display item, see pages 50 to 61.

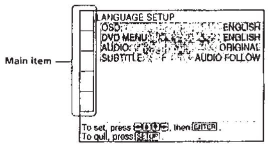
Note
You can display the setup display only when the player is in stop mode.


SET UP
ENTER
⬅/⬆/⬇/➡

1 **Press SET UP to display the setup display on the TV screen.**

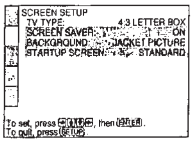

LANGUAGE SETUP
OSD: ENGLISH
DVD MENU: ENGLISH
AUDIO: ORIGINAL
SUBTITLE: AUDIO FOLLOW
To set, press ⬅⬆⬇➡, then ENTER.
To quit, press SETUP.

2 Select the main item you want using ↑/↓, and then press ENTER.
The selected main item is highlighted.



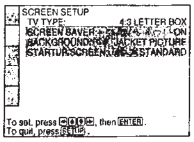
LANGUAGE SETUP
OSD: ENGLISH
DVD MENU: ENGLISH
AUDIO: ORIGINAL
SUBTITLE: AUDIO FOLLOW
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

↓



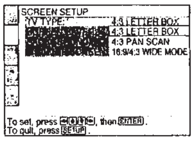
SCREEN SETUP
TV TYPE: 4:3 LETTER BOX
SCREEN SAVER: ON
BACKGROUND: JACKET PICTURE
STARTUP SCREEN: STANDARD
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

3 Select the item you want using ↑/↓, then press → or ENTER.



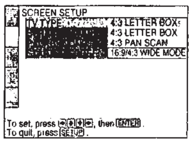
SCREEN SETUP
TV TYPE: 4:3 LETTER BOX
SCREEN SAVER: ON
BACKGROUND: JACKET PICTURE
STARTUP SCREEN: STANDARD
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

↓



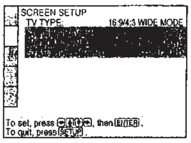
SCREEN SETUP
TV TYPE: 4:3 LETTER BOX
4:3 LETTER BOX
4:3 PAN SCAN
16:9/4:3 WIDE MODE
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

4 Select the setting you want using ←/↑/↓/→, then press ENTER.



SCREEN SETUP
TV TYPE: 4:3 LETTER BOX
4:3 LETTER BOX
4:3 PAN SCAN
16:9/4:3 WIDE MODE
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

↓



SCREEN SETUP
TV TYPE: 16:9/4:3 WIDE MODE
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

To cancel using the setup display on the way
Press SET UP on the remote.

Note
Some setup display items require operations other than selecting the setting. For details on these items, see the relevant pages.

Setup Display Item List

Default settings are underlined.

LANGUAGE SETUP (page 50)
- OSD
  - ENGLISH
  - FRENCH
  - SPANISH
  - PORTUGUESE
- DVD MENU
  - ENGLISH
  - FRENCH
  - SPANISH
  - PORTUGUESE
  - GERMAN
  - ITALIAN
  - DUTCH
  - CHINESE
  - JAPANESE
  - DANISH
  - SWEDISH
  - FINNISH
  - NORWEGIAN
  - RUSSIAN
  - OTHERS →
- AUDIO
  - ORIGINAL
  - (same as DVD MENU)
- SUBTITLE
  - AUDIO FOLLOW
  - (same as DVD MENU)

SCREEN SETUP (page 51)
- TV TYPE
  - 4:3 LETTER BOX
  - 4:3 PAN SCAN
  - 16:9/4:3 WIDE MODE
- SCREEN SAVER
  - ON
  - OFF
- BACKGROUND
  - JACKET PICTURE
  - PICTURE MEMORY
  - GRAPHICS
  - BLUE
  - BLACK
- STARTUP SCREEN
  - STANDARD
  - PICTURE MEMORY

CUSTOM SETUP (page 52)
- AUTO PLAY
  - OFF
  - TIMER
  - DEMO1
  - DEMO2
- DIMMER
  - BRIGHT
  - DARK
  - OFF
- PAUSE MODE
  - AUTO
  - FRAME
- BOOKMARK RESET →
- PARENTAL CONTROL →
- PLAYBACK MEMORY
  - ON
  - OFF

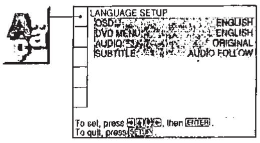
AUDIO SETUP (page 55)
- AUDIO ATT
  - OFF
  - ON
- AUDIO FILTER
  - SHARP
  - SLOW
- AUDIO DRC
  - STANDARD
  - TV MODE
  - WIDE RANGE
- TRACK SELECTION
  - OFF
  - AUTO
- DOWNMIX
  - DOLBY SURROUND
  - NORMAL
- DIGITAL OUT
  - ON
    - DOLBY DIGITAL
    - DTS
  - OFF

SPEAKER SETUP (page 58)
- SIZE
  - FRONT
  - CENTER
  - REAR
  - SUBWOOFER
- DISTANCE
  - FRONT
  - CENTER
  - REAR
- BALANCE
  - FRONT
  - REAR
- LEVEL
  - CENTER
  - REAR
  - SUBWOOFER
- TEST TONE
  - OFF
  - ON

Setting the Language for Display and Sound (LANGUAGE SETUP) DVD VIDEO CD CD

Select "LANGUAGE SETUP" after pressing SET UP.
"LANGUAGE SETUP" allows you to set various languages for on-screen display or sound.
Default settings are underlined.

Note
When you select a language that is not recorded on the DVD, one of the recorded languages is automatically selected except for the "OSD".



LANGUAGE SETUP
OSD: ENGLISH
DVD MENU: ENGLISH
AUDIO: ORIGINAL
SUBTITLE: AUDIO FOLLOW
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

■OSD (On-Screen Display)
Switches the language for the on-screen display.
- ENGLISH
- FRENCH
- SPANISH
- PORTUGUESE

■DVD MENU
Switches the language for the DVD menu.
- ENGLISH
- FRENCH
- SPANISH
- PORTUGUESE
- GERMAN
- ITALIAN
- DUTCH
- CHINESE
- JAPANESE
- DANISH
- SWEDISH
- FINNISH
- NORWEGIAN
- RUSSIAN
- OTHERS→
  When you select "OTHERS→," select and enter the language code from the list using the number buttons (page 69).
  After you have once selected, the language code (4 digits) is displayed.

■AUDIO
Switches the language for the sounds.
- ORIGINAL: the language given priority in the disc
- ENGLISH
- FRENCH
- SPANISH
- PORTUGUESE
- GERMAN
- ITALIAN
- DUTCH
- CHINESE
- JAPANESE
- DANISH
- SWEDISH
- FINNISH
- NORWEGIAN
- RUSSIAN
- OTHERS→
  When you select "OTHERS→," select and enter the language code from the list using the number buttons (page 69).
  After you have once selected, the language code (4 digits) is displayed.

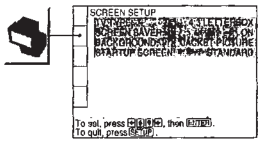
■SUBTITLE
Switches the language for the subtitles.
- AUDIO FOLLOW*
- ENGLISH
- FRENCH
- SPANISH
- PORTUGUESE
- GERMAN
- ITALIAN
- DUTCH
- CHINESE
- JAPANESE
- DANISH
- SWEDISH
- FINNISH
- NORWEGIAN
- RUSSIAN
- OTHERS→
  When you select "OTHERS→," select and enter the language code from the list using the number buttons (page 69).
  After you have once selected, the language code (4 digits) is displayed.

* When you select "AUDIO FOLLOW," the language for the subtitles changes according to the language for the setting you selected in "AUDIO."

Note
The player gives priority to the settings of "SUBTITLE" and "AUDIO" in the Control Menu display when "PLAYBACK MEMORY" is set to "ON." The settings of "SUBTITLE" and "AUDIO" selected in the setup display may not appear in this case. For details on the Playback Memory function, see page 53.

Settings for Display (SCREEN SETUP) DVD VIDEO CD CD

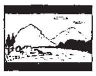
Select "SCREEN SETUP" after pressing SET UP.
"SCREEN SETUP" allows you to set the display according to the playback conditions.
Default settings are underlined.



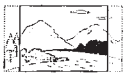
SCREEN SETUP
TV TYPE: 4:3 LETTER BOX
SCREEN SAVER: ON
BACKGROUND: JACKET PICTURE
STARTUP SCREEN: STANDARD
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

■TV TYPE
Selects the aspect ratio of the TV to be connected.
- 4:3 LETTER BOX: when you connect a normal TV to the player. Displays a wide picture with bands displayed on the upper and lower portions of the screen.
- 4:3 PAN SCAN: when you connect a normal TV to the player. Displays the wide picture on the whole screen with a portion automatically cut off.
- 16:9/4:3 WIDE MODE: when you connect a wide-screen TV to the player or when you connect a TV with WIDE MODE function to the player (displays a wide picture with bands displayed on the upper and lower portions of the screen).

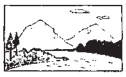
4:3 LETTER BOX



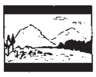
4:3 PAN SCAN



16:9



4:3 WIDE MODE



Note
Depending on the DVD, "4:3 LETTER BOX" may be selected automatically instead of "4:3 PAN SCAN" and vice versa.

■SCREEN SAVER
Turns on and off the screen saver. If you turn on the screen saver, the screen saver image appears when you leave the player or the remote in pause or stop mode for 15 minutes or when you play back a CD for more than 15 minutes. The screen saver is useful to prevent your display from becoming damaged.
- ON: turns on the screen saver.
- OFF: turns off the screen saver.

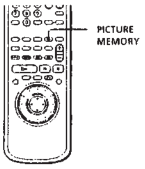
■BACKGROUND
Selects the background color or picture of the TV screen in stop mode or while playing a CD.
- JACKET PICTURE: The jacket picture appears in the background, but only when the jacket picture is already recorded on the disc.
- PICTURE MEMORY: Your favorite picture appears in the background when you have the player store in memory your favorite scene recorded on the disc for the background picture. For the way of storing in memory, see "Storing the picture in memory."
- GRAPHICS: The graphic picture stored in memory in the player beforehand appears in the background.
- BLUE: The background color is blue.
- BLACK: The background color is black.

■STARTUP SCREEN
Selects the startup screen. The startup screen image you selected appears when you turn on the player.
- STANDARD: The standard startup screen memorized in the player beforehand appears.
- PICTURE MEMORY: Your favorite picture appears in the startup screen when you have the player store in memory your favorite scene recorded on the disc for the startup screen. For the way of storing in memory, see "Storing the picture in memory." (page 52)

Storing the picture in memory

During playback, when you find the scene to be stored in memory, press PICTURE MEMORY on the remote.

The picture is stored in memory.

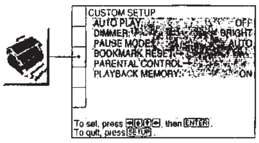


Notes

- The player can store in memory only one scene. The stored picture appears in both the background and the startup screen.
- When the picture is stored in memory by pressing PICTURE MEMORY, the picture stored before is not retained in memory.

Custom Settings (CUSTOM SETUP) DVD VIDEO CD CD

Select "CUSTOM SETUP" after pressing SET UP.
"CUSTOM SETUP" allows you to set the playback conditions.
Default settings are underlined.



CUSTOM SETUP
AUTO PLAY: OFF
DIMMER: BRIGHT
PAUSE MODE: AUTO
BOOKMARK RESET→
PARENTAL CONTROL→
PLAYBACK MEMORY: ON
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

■AUTO PLAY

Selects the setting of Auto Play when you connect the AC power cord to the AC outlet.

- OFF: does not use "TIMER," "DEMO1" or "DEMO2" to start playing.
- TIMER: starts playing a disc automatically when you connect the AC power cord to the AC outlet. By connecting a timer (not supplied), you can start playing at any time you want.
- DEMO1: starts playing the demonstration 1 automatically.
- DEMO2: starts playing the demonstration 2 automatically.

■DIMMER

Adjusts the lighting of the front panel display.

- BRIGHT: makes the front panel display bright.
- DARK: makes the front panel display dark.
- OFF: turns off the lighting of the front panel display.

■PAUSE MODE

Selects the picture in pause mode.

- AUTO: A picture including subjects that move dynamically is output with no jitter. Normally select this position.
- FRAME: A picture including subjects that do not move dynamically is output with high resolution.

■BOOKMARK RESET→

Select "BOOKMARK RESET→." The BOOKMARK reset display appears. And then press ENTER to reset all bookmarks.

■PARENTAL CONTROL→

Sets a password and playback limitation level when you play DVDs with playback limitation for children.
For details, see "Limiting Playback by Children (Parental Control) ."

■PLAYBACK MEMORY

You can have the player store the settings of SUBTITLE and VIDEO EQ, etc., of each disc up to 200 discs. (Playback Memory)
Set the Playback Memory function on or off.

- ON: stores the settings in memory when you eject the disc.
- OFF: does not store the settings in memory.

Following settings are stored in memory with the Playback Memory function.

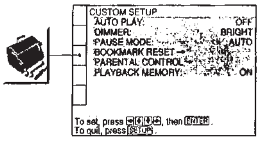
- AUDIO (page 31)
- SUBTITLE (page 32)
- ANGLE (page 33)
- VIRTUAL 3D SURROUND (page 34)
- VIDEO EQ (page 43)
- DNR (page 43)

Note

The player can store in memory the settings of up to 200 discs. When you have the player store over 200 discs in memory, each new setting erases the setting from those first stored.

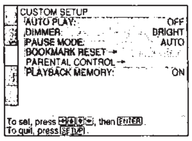
Limiting Playback by Children (Parental Control) DVD

Select "CUSTOM SETUP" after pressing SET UP.
Playing some DVDs can be limited depending on the age of users. The "Parental Control" function allows you to set a playback limitation level.



CUSTOM SETUP
AUTO PLAY: OFF
DIMMER: BRIGHT
PAUSE MODE: AUTO
BOOKMARK RESET→
PARENTAL CONTROL→
PLAYBACK MEMORY: ON
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

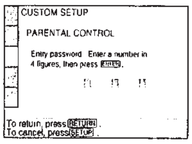
1 Select "PARENTAL CONTROL" using ↑/↓, then press ENTER.



CUSTOM SETUP
AUTO PLAY: OFF
DIMMER: BRIGHT
PAUSE MODE: AUTO
BOOKMARK RESET→
PARENTAL CONTROL→
PLAYBACK MEMORY: ON
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

■When you have not entered a password yet

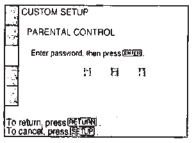
The display for entering a password appears.



CUSTOM SETUP
PARENTAL CONTROL
Entry password Enter a number in 4 figures, then press ENTER.
To return, press RETURN.
To cancel, press SETUP.

■When you have already entered a password

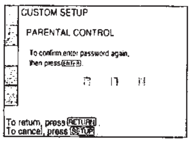
The display for confirming the password appears. Skip Step 2.



CUSTOM SETUP
PARENTAL CONTROL
Enter password, then press ENTER.
To return, press RETURN.
To cancel, press SETUP.

2 Enter a password in 4 digits using the number buttons, then press ENTER.

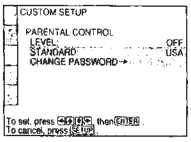
The digits change to asterisks (✻), and the display for confirming the password appears.



CUSTOM SETUP
PARENTAL CONTROL
To confirm,enter password again, then press ENTER.
To return, press RETURN.
To cancel, press SETUP.

3 To confirm your password, enter it using the number buttons, then press ENTER.

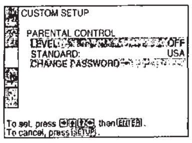
The display for setting the playback limitation level and changing the password appears.



CUSTOM SETUP
PARENTAL CONTROL
LEVEL: OFF
STANDARD: USA
CHANGE PASSWORD→
To set, press ←↑↓→, then ENTER.
To cancel, press SETUP.

---

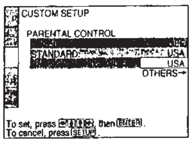
4 Select "STANDARD" using ↑/↓, then press →.



CUSTOM SETUP
PARENTAL CONTROL
LEVEL: OFF
STANDARD: USA
CHANGE PASSWORD→
To set, press ←↑↓→, then ENTER.
To cancel, press SETUP.

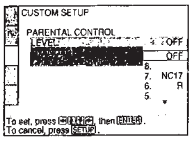
5 Select an area as the standard for playback limitation level using ↑/↓, then press →.

When you select "OTHERS→," select and enter the standard code in the table below using number buttons.



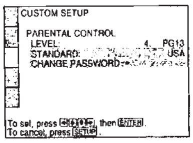
CUSTOM SETUP
PARENTAL CONTROL
STANDARD: USA
USA
OTHERS→
To set, press ←↑↓→, then ENTER.
To cancel, press SETUP.

6 Select "LEVEL" using ↑/↓, then press →.



CUSTOM SETUP
PARENTAL CONTROL
LEVEL: OFF
OFF
8.
7. NC17
6. R
5.
To set, press ←↑↓→, then ENTER.
To cancel, press SETUP.

7 Select the level you want using ↑/↓, then press ENTER.



CUSTOM SETUP
PARENTAL CONTROL
LEVEL: 4. PG13
STANDARD: USA
CHANGE PASSWORD→
To set, press ←↑↓→, then ENTER.
To cancel, press SETUP.

The lower the value is, the more strict the limitation.

To return to the normal screen

Press SET UP.

To turn off the Parental Control function and play the DVD after entering your password

Set "LEVEL" to "OFF" in Step 7, then press ▷.

To change the password

1 After Step 3, select "CHANGE PASSWORD" using ↑/↓, then press → or ENTER.
The display for changing the password appears.
2 Follow Steps 2 and 3 to enter a new password.

You can turn off the Parental Control function just after inserting the DVD (Parental Control Temporarily Canceled)

When you set a playback limitation level and insert the DVD, the PARENTAL CONTROL display appears. Enter the password to turn off the Parental Control function.
When you stop playing the DVD, the level returns to the original level.

If you have forgot your password

Enter the 6 digits number "199703" in Step 2 to clear the current password. To enter a new password, follow the procedure from Step 2 again.

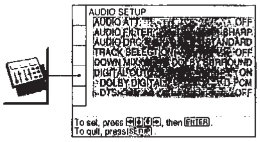
Notes

- When you play DVDs which do not have the Parental Control function, playback cannot be limited on this player.
- When you do not set a password, you cannot change the settings for playback limitation.
- Depending on the DVD, you may be asked to change the parental control level while playing the disc. In this case, enter the password, then change the level.
  When you stop playing the DVD, the level returns to the original level.

Standard	Code number
Austria	2046
Belgium	2057
Canada	2079
China	2092
Denmark	2115
Finland	2165
France	2174
Germany	2109
Hong Kong	2219
Indonesia	2238
Italy	2254
Japan	2276
Malaysia	2363
Netherlands	2376
Norway	2379
Philippines	2424
Russian	2489
Singapore	2501
Spain	2149
Sweden	2499
Switzerland	2086
Taiwan	2543
Thailand	2528
United Kingdom	2184

Settings for Sound (AUDIO SETUP)

Select "AUDIO SETUP" after pressing SET UP.
"AUDIO SETUP" allows you to set the sound according to the playback conditions.
Default settings are underlined.



AUDIO SETUP
AUDIO ATT: OFF
AUDIO FILTER: SHARP
AUDIO DRC: STANDARD
TRACK SELECTION: OFF
DOWN MIX: DOLBY SURROUND
DIGITAL OUT: ON
DOLBY DIGITAL: D-PCM
DTS: OFF
To set, press ←↑↓→, then ENTER.
To quit, press SETUP.

■AUDIO ATT (attenuation)

Selects the setting of the output from the LINE OUT (AUDIO 1, 2) and 5.1 OUTPUT connectors according to the audio equipment to be connected.

- OFF: turns off the audio attenuation.
- ON: reduces the audio output level so that no sound distortion occurs.

Note

The setting does not affect the output from the DIGITAL OUT OPTICAL and COAXIAL connectors.

■AUDIO FILTER

Selects the type of digital filter to reduce the noise of a frequency higher than 22.05kHz (fs 44.1kHz), 24kHz (fs 48kHz) or 48kHz (fs 96kHz).

- SHARP: makes the sound clear and provides smooth sound reproduction. Normally set this position.
- SLOW: makes the sound warm and deep.

Note

Depending on the disc, the effect on the sound may be difficult to hear.

■AUDIO DRC (Dynamic Range Control)

Makes the sound clear with the volume turned down at night, etc., when you play a DVD. This affects the output from the DIGITAL OUT connectors only when "PCM" in "DIGITAL OUT" is set to "ON," and it affects the output from the LINE OUT (AUDIO 1,2), and 5.1CH OUTPUT connectors.

- STANDARD: Normally select this position.
- TV MODE: makes the low sound clear even if you turned the volume down, so it is good for playing at night. It is especially recommended when you listen to the sound using the speakers of the TV.
- WIDE RANGE: It gives you the feeling of being at a live performance. When you use high quality speakers, it is more effective.

Notes

- When you play DVDs without the AUDIO DRC function, the effect on the sound may be difficult to hear.
- When this item is set to "WIDE RANGE," the sound volume from other than the 5.1CH OUTPUT connectors may be less than usual.
- "WIDE RANGE" cannot be selected when you have selected "NONE" in "SIZE" under "SPEAKER SETUP."

■TRACK SELECTION

Gives the sound track which contains the highest number of the channels priority when you play a DVD on which multiple audio formats are recorded. If multiple audio channels are recorded in PCM, DTS or Dolby Digital (AC-3) format, the higher-numbered channel audio recorded in PCM, DTS or Dolby Digital (AC-3) format is played.

- OFF : No priority given.
- AUTO : Priority given.

Notes

- When the player stores the settings in memory with the Playback Memory function, the player may not give priority even if you select "AUTO."
- When you set this item to "AUTO", the language may change depending on the "AUDIO" settings in "LANGUAGE SETUP." The "TRACK SELECTION" setting has higher priority than that of "AUDIO" settings in "LANGUAGE SETUP" (page 50).
- If you set "DTS" in "AUDIO SETUP" to "OFF", the DTS sound track is not played even if you set this item to "AUTO" and the highest-numbered channel audio is recorded in DTS format.
- If PCM, DTS and Dolby Digital (AC-3) sound tracks have the same number of the highest channels, the player selects PCM, DTS and Dolby Digital (AC-3) sound tracks, in this order.
- Depending on the DVD, the audio with priority may be predetermined. In this case, you cannot give priority to the DTS or Dolby Digital (AC-3) format by selecting "AUTO."

■DOWNMIX*

Switches the mixing down methods when you play a DVD on which the sound in Dolby Digital (AC-3) format is recorded.

- DOLBY SURROUND: when the player is connected to an audio component that conforms to Dolby surround. (Pro Logic)
- NORMAL: when the player is connected to a normal audio component.

* The setting affects the following connectors:
–LINE OUT (AUDIO 1, 2) connectors
–DIGITAL OUT (OPTICAL, COAXIAL) connectors.

■DIGITAL OUT

Selects output signals via the DIGITAL OUT OPTICAL and COAXIAL connectors.

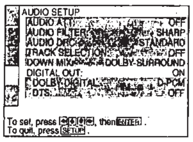
- ON: Normally select this position. When you select "ON," set "DOLBY DIGITAL" and "DTS." For details on setting them, see "Setting for the Signal to the Digital Output."
- OFF: when the player does not output the sound signals via DIGITAL OUT OPTICAL and COAXIAL connectors, if you select this position, the influence of the digital circuit upon the analog one is minimum.

Notes

- When you play the sound tracks with 96 kHz sampling frequency, the output signals from the DIGITAL OUT (OPTICAL, COAXIAL) are converted to 48 kHz (sampling frequency). Sampling Frequency stays at 96kHz only when the signals are output from LINE OUT (AUDIO 1, 2) connectors.
- When you select "OFF," You cannot set "DOLBY DIGITAL" and "DTS."

Setting for the Signal to the Digital Output

When you select "ON," set "DOLBY DIGITAL" and "DTS."
Switches the methods of outputting audio signals when you connect a digital component such as a receiver (amplifier) having a digital connector, an audio component having a built-in DTS decoder, a DAT or MD via the DIGITAL OUT OPTICAL or COAXIAL connector using an optical or coaxial digital connecting cord. For details on the connection, see page 11.



AUDIO SETUP
AUDIO ATT: OFF
AUDIO FILTER: SHARP
AUDIO DRC: STANDARD
TRACK SELECTION: OFF
DOWN MIX: DOLBY-SURROUND
DIGITAL OUT: ON
DOLBY DIGITAL: D-PCM
DTS: OFF
To set, press ←/↑/↓/→, then ENTER.
To quit, press SETUP.

■DOLBY DIGITAL

Selects output Dolby Digital (AC-3) signals via the DIGITAL OUT OPTICAL and COAXIAL connectors. You cannot select this item when you set "DIGITAL OUT" to "OFF."

- D-PCM (Downmix PCM): when you play the Dolby Digital (AC-3) sound tracks, the output audio signals are mixed down to 2 channels. With the settings of the item "DOWNMIX" in "AUDIO SETUP," you can select whether the signals conform to Dolby surround (Pro Logic) or not.
- DOLBY DIGITAL: when the player is connected to an audio component with a built-in Dolby Digital (AC-3) decoder.

Note
If the player is connected to an audio component lacking a built-in Dolby Digital (AC-3) decoder, do not set "DOLBY DIGITAL" in "AUDIO SETUP" to "DOLBY DIGITAL." Otherwise, when you play the Dolby Digital (AC-3) sound track, a loud noise or no sound will come out from the speakers, affecting your ears or causing the speakers to be damaged.

■DTS

Selects output DTS signals via the DIGITAL OUT OPTICAL and COAXIAL connectors. You cannot select this item when you set "DIGITAL OUT" to "OFF."

- OFF: when the player is connected to an audio component lacking a built-in DTS decoder.
- ON: when the player is connected to an audio component having a built-in DTS decoder.

Note
Select the setting correctly. Otherwise, no sound or strange sound will come out from the speakers, affecting your ears or causing the speakers to be damaged.

- **Do not play the DTS sound tracks without connecting the player to an audio component having a built-in DTS decoder. You cannot hear the DTS sound unless you connect the player to an audio component having a built-in DTS decoder.**
- **When you play the DTS sound track on a CD, a loud noise will come out from the LINE OUT (AUDIO 1, 2), 5.1CH OUTPUT (FRONT L/R) and PHONES connectors, affecting your ears or causing the speakers or headphones to be damaged.**
- **When you play the DTS sound track on a DVD, no sounds will come out from the LINE OUT (AUDIO 1, 2), 5.1CH OUTPUT (FRONT L/R) and PHONES connectors.**

Notes on playing the DTS sound tracks on a CD

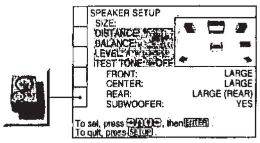
- Do not play the DTS sound tracks without connecting the player to an audio component having a built-in DTS decoder. The player output the DTS signal via the DIGITAL OUT OPTICAL and COAXIAL connectors even if "DTS" in "AUDIO SETUP" is set to "OFF" in the setup display, affecting your ears or causing the speakers to be damaged.
- The DTS indicator on the front panel does not light up even if the player outputs DTS signal via the DIGITAL OUT OPTICAL and COAXIAL connectors.
- Set the sounds to "STEREO" when you play the DTS sound tracks on a CD. (See "Changing the Sounds" on page 31.) If you set the sounds to "1/L" or "2/R", no sounds will come out from the DIGITAL OUT OPTICAL and COAXIAL connectors.

Notes on playing the DTS sound tracks on a DVD

- No sounds will come out from the LINE OUT (AUDIO 1, 2) and PHONES connectors.
- If the player is connected to an audio component lacking a built-in DTS decoder, do not set "DTS" in "DIGITAL OUT" to "ON" in the setup display. Otherwise, when you play the DTS sound track, a loud noise will come out from the speakers, affecting your ears or causing the speakers to be damaged.
- When you set "DTS" in "AUDIO SETUP" to "OFF", no sound will come out from the DIGITAL OUT OPTICAL and COAXIAL connectors even if you play DTS sound tracks on DVDs.

Speaker Set Up

Select "SPEAKER SETUP" after pressing SET UP.
To obtain the best possible surround sound, first specify the size of the speakers you have connected and their distance from your listening position, then set the balance and level. Use the test tone to adjust the speaker volumes to the same level.
For the speaker hook ups, see pages 12 to 13.



SPEAKER SETUP
SIZE:
DISTANCE:
BALANCE:
LEVEL:
TEST TONE: OFF
FRONT: LARGE
CENTER: LARGE
REAR: LARGE (REAR)
SUBWOOFER: YES
To set, press ←/↑/↓/→, then ENTER.
To quit, press SETUP.

■SIZE

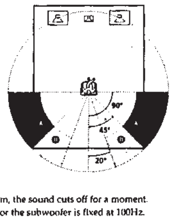
Selects the size of the speakers to be connected.

- FRONT
  - —LARGE: Normally select this.
  - —SMALL: When the sound cracks or the effects of the surround is difficult to hear, select this. This activates the Dolby Digital (AC-3) bass redirection circuitry and outputs the bass frequencies of the speaker from subwoofers.
- CENTER
  - —NONE: If you will not connect a center speaker, select this.
  - —LARGE: Normally select this.
  - —SMALL: When the sound cracks, select this. This activates the Dolby Digital (AC-3) bass redirection circuitry and outputs the bass frequencies of the speaker from some other speakers .
- REAR
  - —NONE: If you will not connect a rear speaker, select this.
  - —LARGE (REAR*/SIDE*): Normally select this.
  - —SMALL (REAR*/SIDE*): When the sound cracks or the effects of the surround is difficult to hear, select this. This activates the Dolby Digital (AC-3) bass redirection circuitry and outputs the bass frequencies of the speaker from some other speakers .
- SUBWOOFER
  - —NONE: If you do not connect a subwoofer, select this. This activates the Dolby Digital (AC-3) bass redirection circuitry and outputs the LFE signals from the front speakers.
  - —YES: If you connect a subwoofer, select this to output the LFE (low frequency effects) channel from the subwoofer.

* Rear speaker position (REAR/SIDE)
These items let you specify the location of your rear speakers for proper implementation of "VIRTUAL REAR SHIFT" and "VIRTUAL MULTI REAR" in the Control Menu display. Refer to the illustration below.

- Set to "SIDE" if the location of your rear speakers corresponds to section A.
- Set to "REAR" if the location of your rear speakers correcponds to section B.

This setting effects only the "VIRTUAL REAR SHIFT" and "VIRTUAL MULTI REAR" mode.



Notes

- When you select an item, the sound cuts off for a moment.
- The cut off frequency for the subwoofer is fixed at 100Hz.
- Set the subwoofer's cut off frequency as high as possible.
- Depending on the settings of other speakers, the subwoofer may output excessive sound.
- If your speakers are too small to reproduce low bass frequencies, please set all speaker settings to "SMALL" and utilize a subwoofer for low frequency sound.

■DISTANCE

You can vary the distance of each speaker as follows. Default adjustments are in the parentheses.

- FRONT (12ft/3.6m)
  Front speaker distance can be set in 1 foot/0.3 meter steps from 4 to 50 feet/1.2 to 15.2 meters.
- CENTER (12ft/3.6m)
  Center speaker distance can be set in 1 foot/0.3 meter steps from a distance 2 feet/0.6 meter farther to the front speaker to a distance 5 feet/1.5 meters closer to your listening position.
- REAR (10ft/3.0m)
  Rear speaker distance can be set in 1 foot/0.3 meter steps from a distance equal to the front speaker distance to a distance 16 feet/5 meters closer to your listening position.

Notes

- When you set the distance, the sound cuts off for a moment.
- If each of the front or rear speakers are not placed an equal distance from your listening position, set the distance of the closest speaker.
- Do not place the rear speaker farther away from your listening position than the front speakers.

■BALANCE

You can vary the balance of each speaker as follows. Default adjustments are in the parentheses.

- FRONT (0dB)
  Adjust the balance between the front left and right speakers (-6dB to +6dB, 0.5dB steps).
- REAR (0dB)
  Adjust the balance between the rear left and right speakers (-6dB to +6dB, 0.5dB steps).

Note
When you select "VES A" or "VES B" in "VIRTUAL 3D SURROUND" in the Control Menu display, you cannot adjust the level or the balance of the speakers except for the front speakers.

■LEVEL

You can vary the level of each speaker as follows. Default adjustments are in the parentheses.

- CENTER (0dB)
  Adjust the level of the center speaker (-6dB to +6dB, 0.5dB steps).
- REAR (0dB)
  Adjust the level of the rear speakers (-6dB to +6dB, 0.5dB steps).
- SUBWOOFER (0dB)
  Adjust the level of the subwoofer (-10dB to +6dB, 0.5dB steps).

■TEST TONE

You can hear the test tone from each speaker in sequence.

- OFF: The test tone is not emitted from speakers.
- ON: During adjustment of "BALANCE" or "LEVEL," the test tone is emitted from both speakers simultaneously.

Note
While you are playing a disc, you cannot hear the test tone. Execute the test tone after you stop playback.

To adjust the volume of all the speakers at one time

Use the receiver's (amplifier's) volume control.

To return to the default setting

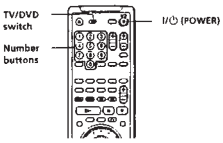
Select the item, then press CLEAR.

Adjusting the speaker volume

1. **While you stop playback, select ".SPEAKER SETUP" after pressing SET UP.**
2. **Select "TEST TONE" and set "TEST TONE" to "ON."**
   You will hear the test tone from each speaker in sequence.
3. **From your listening position, select "BALANCE" or "LEVEL" and adjust the value of "BALANCE" and "LEVEL" using ↑/↓.**
   During this adjustment, the test tone is emitted from both speakers simultaneously.
4. **Select "TEST TONE" and set "TEST TONE" to "OFF" to turn off the test tone.**

Controlling the TV or the AV Receiver (Amplifier) with the Supplied Remote 🅘

If you adjust the remote signal, you can control your TV with the supplied remote. Default setting is to control Sony TVs with the 🅢 mark.
When you connect the player to a Sony AV receiver (amplifier), you can also set the input of the receiver (amplifier) to this player with the supplied remote.



Controlling TVs with the remote

1 **Slide TV/DVD switch to TV.**

2 **Hold down I/⏻ (POWER), and enter your TV's manufacturer's code (see the table) using the number buttons. Then release I/⏻ (POWER).**

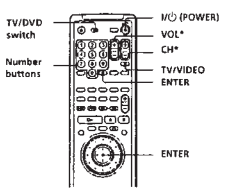
Code numbers of controllable TVs
If more than one code number is listed, try entering them one at a time until you find the one that works with your TV.

Notes
- If you enter a new code number, the code number previously entered will be erased.
- When you replace the batteries of the remote commander, the code number automatically resets to 01 (Sony). Reset the appropriate code number.

Manufacturer	Code number
Sony (default)	01
Akai	04
AOC	04
Centurion	12
Coronado	03
Curis-Mathes	12
Daytron	12
Emerson	03,04,14
Fisher	11
General Electric	06,10
Gold Star	03,04,17
Hitachi	02,03
J.C.Penny	04,12
JVC	09
KMC	03
Magnavox	03,08,12
Marantz	04,13
MGA/Mitsubishi	04,12,13,17
NEC	04,12

Manufacturer	Code number
Panasonic	06,19
Philco	03,04
Philips	08
Pioneer	16
Portland	03
Quasar	06,18
Radio Shack	05,14
RCA	04,10
Sampo	12
Sanyo	11
Scott	12
Sears	07,10,11
Sharp	03,05,18
Sylvania	08,12
Teknika	03,08,14
Toshiba	07
Wards	03,04,12
Yorx	12
Zenith	15

When you set the TV/DVD switch to TV, you can control your TV using the keys below.



By pressing	You can
I/⏻ (POWER)	Turn the TV on or off
TV/VIDEO	Select the input source for the TV
VOL*	Adjust the volume of the TV
CH*	Change the channel of the TV
Number buttons and ENTER	Select the channel of the TV

* You can control the TV regardless of the position of the TV/DVD switch.

Note
Depending on the TV, you may not be able to control your TV or to use some of the buttons above.

Controlling an AV receiver (amplifier) with the remote

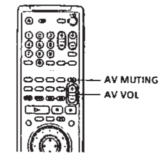
1 **Slide TV/DVD switch to DVD.**

2 **Hold down I/⏻ (POWER), and enter your AV receiver's manufacturer's code (see the table below) using the number buttons. Then release I/⏻ (POWER).**

Manufacturer	Code number
Sony	91(default), 88, 89
Denon	84, 85, 86
Kenwood	92, 93
Onkyo	81, 82, 83
Pioneer	99
Sunsui	87
Technics	97, 98
Yamaha	94, 95, 96

Code numbers of controllable receivers (amplifiers)
If more than one code number is listed, try entering them one at a time until you find the one that works with your receiver (amplifier).

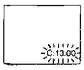
You can also change the sound volume of the AV receiver (amplifier) using AV VOL and AV MUTING.



Notes
- Depending on the AV receiver (amplifier), you may not be able to control your AV receiver (amplifier).
- You can control the AV receiver (amplifier) regardless of the position of the TV/DVD switch.

Self-diagnosis function

When the self-diagnosis function works to prevent the player from malfunctioning, a five-character service number (combination of a letter and digits) flashes on the screen. In this case, check the following table.



First three characters	Cause and/or Corrective Action
C13	• The disc is dirty. ➡Clean the disc with a cleaning cloth. (page 6)
C31	• The disc is not inserted correctly. ➡Open the disc tray and insert the disc correctly.
Exx (xx is any number)	• To prevent the player from malfunctioning, the self-diagnosis function has worked. ➡When you contact your Sony dealer or local authorized Sony service facility, give the 5-character service number. (example: E:61:10)

Language Code List

For details, see page 32, 50.

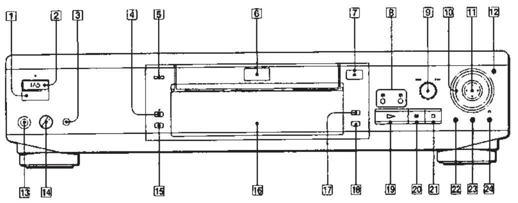
The language spellings conform to the ISO 639: 1988 (E/F) standard.

Code	Language	Code	Language	Code	Language	Code	Language
1027	Afar	1186	Scots Gaelic	1350	Malayalam	1513	Siswati
1028	Abkhazian	1194	Galician	1352	Mongolian	1514	Sesotho
1032	Afrikaans	1196	Guarani	1353	Moldavian	1515	Sundanese
1039	Amharic	1203	Gujarati	1356	Marathi	1516	Swedish
1044	Arabic	1209	Hausa	1357	Malay	1517	Swahili
1045	Assamese	1217	Hindi	1358	Maltese	1521	Tamil
1051	Aymara	1226	Croatian	1363	Burmese	1525	Telugu
1052	Azerbaijani	1229	Hungarian	1365	Nauru	1527	Tajik
1053	Bashkir	1233	Armenian	1369	Nepali	1528	Thai
1057	Byelorussian	1235	Interlingua	1376	Dutch	1529	Tigrinya
1059	Bulgarian	1239	Interlingue	1379	Norwegian	1531	Turkmen
1060	Bihari	1245	Inupiak	1393	Occitan	1532	Tagalog
1061	Bislama	1248	Indonesian	1403	(Afan) Oromo	1534	Setswana
1066	Bengali; Bangla	1253	Icelandic	1408	Oriya	1535	Tonga
1067	Tibetan	1254	Italian	1417	Punjabi	1538	Turkish
1070	Breton	1257	Hebrew	1428	Polish	1539	Tsonga
1079	Catalan	1261	Japanese	1435	Pashto; Pushto	1540	Tatar
1093	Corsican	1269	Yiddish	1436	Portuguese	1543	Twi
1097	Czech	1283	Javanese	1463	Quechua	1557	Ukrainian
1103	Welsh	1287	Georgian	1481	Rhaeto-Romance	1564	Urdu
1105	Danish	1297	Kazakh	1482	Kirundi	1572	Uzbek
1109	German	1298	Greenlandic	1483	Romanian	1581	Vietnamese
1130	Bhutani	1299	Cambodian	1489	Russian	1587	Volapük
1142	Greek	1300	Kannada	1491	Kinyarwanda	1613	Wolof
1144	English	1301	Korean	1495	Sanskrit	1632	Xhosa
1145	Esperanto	1305	Kashmiri	1498	Sindhi	1665	Yoruba
1149	Spanish	1307	Kurdish	1501	Sangho	1684	Chinese
1150	Estonian	1311	Kirghiz	1502	Serbo-Croatian	1697	Zulu
1151	Basque	1313	Latin	1503	Singhalese	1703	Not specified
1157	Persian	1326	Lingala	1505	Slovak		
1165	Finnish	1327	Laothian	1506	Slovenian		
1166	Fiji	1332	Lithuanian	1507	Samoan		
1171	Faroese	1334	Latvian; Lettish	1508	Shona		
1174	French	1345	Malagasy	1509	Somali		
1181	Frisian	1347	Maori	1511	Albanian		
1183	Irish	1349	Macedonian	1512	Serbian		

Index to Parts and Controls

Refer to the pages indicated in parentheses for details.

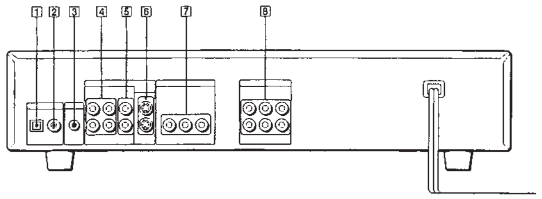
Front Panel



1 **(remote sensor) (7)**
Accepts the remote control signals.
2 **I/⏻ (POWER) button and indicator (15)**
Turns on and off the power of the player.
3 **VIRTUAL 3D SURROUND button/indicator (35)**
Selects the item of "VIRTUAL 3D SURROUND." Each time you press the button, the item changes.
When you do not set "VIRTUAL 3D SURROUND" to "OFF," the indicator lights up.
4 **SHUFFLE button (38)**
Displays the "SHUFFLE" display on the TV screen.
5 **DOLBY DIGITAL indicator (34)**
Lights up as follows:
- playing back Dolby Digital (AC-3) soundtrack on the DVD
- the disc is not inserted

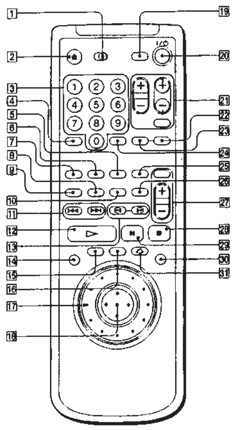
6 **Disc tray (15)**
Place a disc on the tray.
7 **⏏OPEN/CLOSE button (15)**
Opens or closes the disc tray.
8 **◁◁/▷▷ SEARCH buttons (17)**
Press to locate a scene.
9 **⏮/⏭ PREV/NEXT (DIRECT SEARCH dial) button (16)**
Turn to select a chapter or track, and then press to go back to the selected chapter or track.
10 **Click shuttle (17)**
Changes the playback speed.
11 **←/↑/↓/→/ ENTER button**
Selects and executes the items or settings.
12 **JOG button / Indicator (17)**
Press to play a disc frame by frame.
13 **PHONES connector (15)**
Connect the headphones to this connector.
14 **PHONE LEVEL control (15)**
Adjusts the headphone volume.
15 **PROGRAM button (36)**
Displays the "PROGRAM" display on the TV screen.
16 **Front Panel Display (21)**
Indicates the playing time, etc.
17 **REPEAT button (39)**
Displays the "REPEAT" display on the TV screen.
18 **CLEAR button (37, 38, 39)**
Press to return to the continuous play, etc.
19 **▷PLAY button (15)**
Plays a disc.
20 **❚❚PAUSE button (16)**
Pauses playing a disc.
21 **■STOP button (16, 18)**
Stops playing a disc.
22 **TITLE button (19)**
Displays the title menu on the TV screen.
23 **DVD MENU button (19)**
Displays the DVD menu on the TV screen.
24 **↶ RETURN button (20, 24)**
Press to return to the previously selected screen, etc.

Rear Panel



1 **DIGITAL OUT (OPTICAL) connector (11)**
Connects to an audio component using the optical digital connecting cord.
2 **DIGITAL OUT (COAXIAL) connector (11)**
Connects to an audio component using the coaxial digital connecting cord.
3 **S-LINK connector (8)**
Connects to the S-link connector on an external component.
4 **LINE OUT (AUDIO 1, 2) connectors (8, 10)**
Connects to the audio input connector on the TV or receiver (amplifier).
5 **LINE OUT (VIDEO 1, 2) connectors (8)**
Connects to the video input connector on the TV or monitor.
6 **S VIDEO OUT (1, 2) connectors (8, 10)**
Connects to the S video input connector on the TV or VCR.
7 **COMPONENT VIDEO OUT connectors (9)**
Connects to a monitor or projector having component video input connectors (Y, PB/B-Y, PR/R-Y) that conform to output signals from the player.
8 **5.1CH OUTPUT connectors (13)**
Connects to a receiver (amplifier) having 5.1 channel input connectors.

Remote

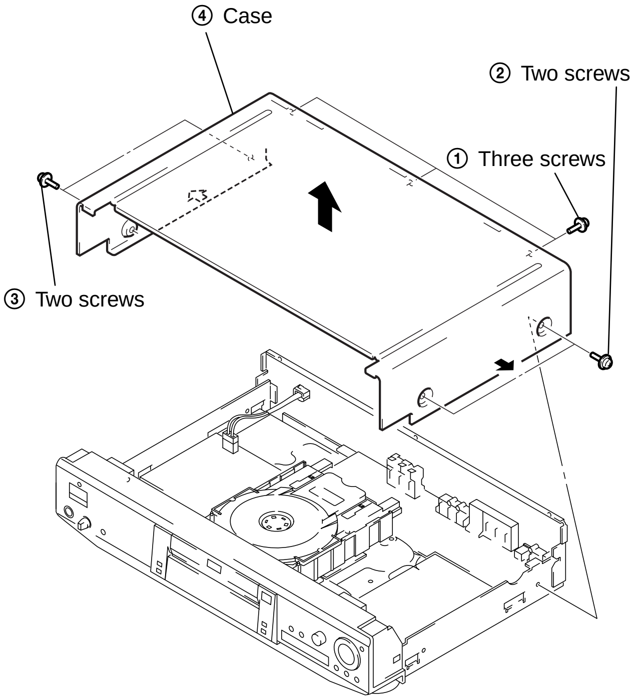


1 **TV/DVD switch (60)**
Selects to control the player or the TV with the remote.
2 **⏏OPEN/CLOSE button (15)**
Opens or closes the disc tray.
3 **Number buttons**
Selects the items or settings.
4 **CLEAR button (37, 38, 39)**
Press to return to the continuous play etc.
5 **REPEAT button (39)**
Displays the "REPEAT" display on the TV screen.
6 **PROGRAM button (36)**
Displays the "PROGRAM" display on the TV screen.
7 **SHUFFLE button (38)**
Displays the "SHUFFLE" display on the TV screen.
8 **ANGLE button (33)**
Changes the angles when playing a DVD.
9 **AUDIO button (31)**
Changes the sound while playing a DVD or VIDEO CD.
10 **SUBTITLE button (32)**
Displays the SUBTITLE menu in the Control Menu display.
11 **⏮/⏭PREV/NEXT buttons (16)**
Press to go to the next chapter or track or to go back to the previous chapter or track.
12 **▷PLAY button (15)**
Plays a disc.
13 **◁◁/▷▷ (SEARCH) buttons (17)**
Press to locate a scene.
14 **DISPLAY button (23)**
Displays the Control Menu display on the TV screen to set or adjust the items.
15 **TITLE button (19)**
Displays the title menu on the TV screen.
16 **DVD MENU button (19)**
Displays the DVD menu on the TV screen.
17 **Click shuttle (17)**
Changes the playback speed.
18 **←/↑/↓/→/ ENTER button**
Selects and executes the items or settings.
19 **SET UP button (47)**
Displays the setup display on the TV screen to set or adjust the items.
20 **I/⏻ (POWER) button (15)**
Turns on and off the power of the player and TV.
21 **TV operation buttons (60)**
Controls TVs.
22 **TIME/TEXT button (21)**
Displays the playing time of the disc, etc., on the front panel display.
23 **INPUT button (30)**
Press when labeling a disc.
24 **ENTER button**
Executes the items or settings.
25 **PICTURE MEMORY button (51)**
Press to store a picture in memory.
26 **BOOK MARK button (46)**
Press to set a bookmark.
27 **Receiver operation buttons (61)**
Controls AV receivers (amplifiers).
28 **■STOP button (16, 18)**
Stops playing a disc.
29 **❚❚PAUSE button (16)**
Pauses playing a disc.
30 **JOG button / indicator (17)**
Press to play a disc frame by frame.
31 **↶RETURN button (20, 24)**
Press to return to the previously selected screen, etc.

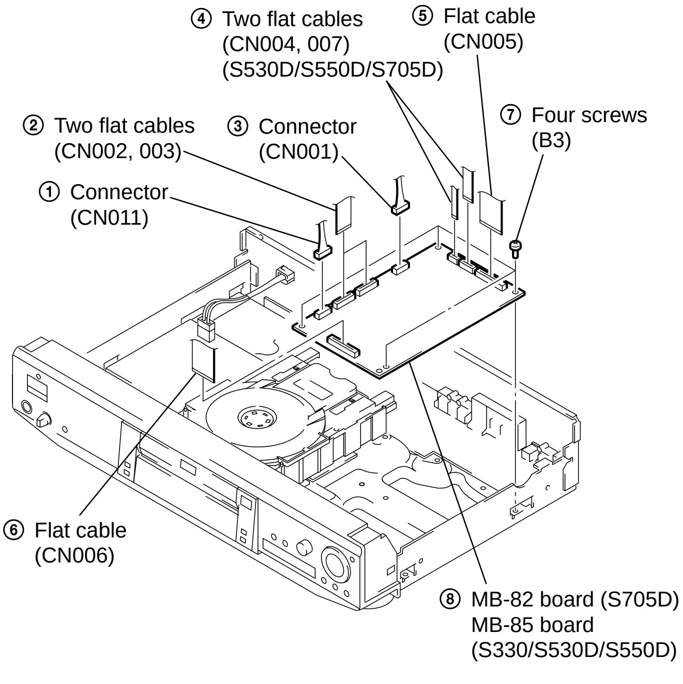
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

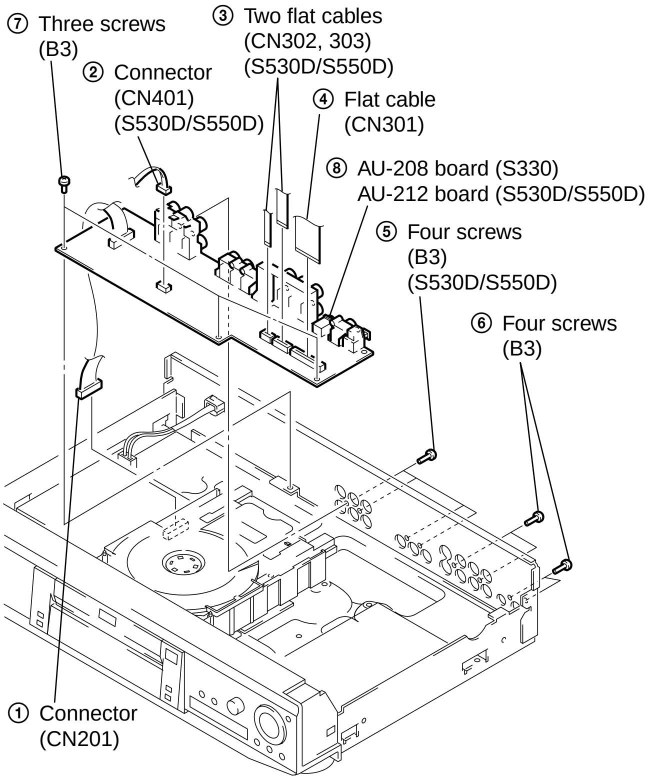
2-1. CASE REMOVAL


④ Case
② Two screws
① Three screws
③ Two screws

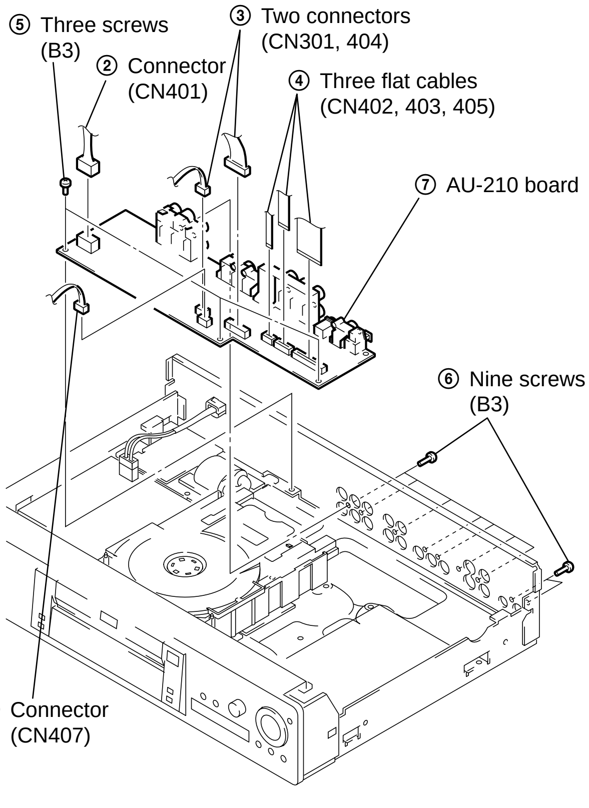
2-2. MB-82/85 BOARD REMOVAL


④ Two flat cables
(CN004, 007)
(S530D/S550D/S705D)
⑤ Flat cable
(CN005)
⑦ Four screws
(B3)
② Two flat cables
(CN002, 003)
③ Connector
(CN001)
① Connector
(CN011)
⑥ Flat cable
(CN006)
⑧ MB-82 board (S705D)
MB-85 board
(S330/S530D/S550D)

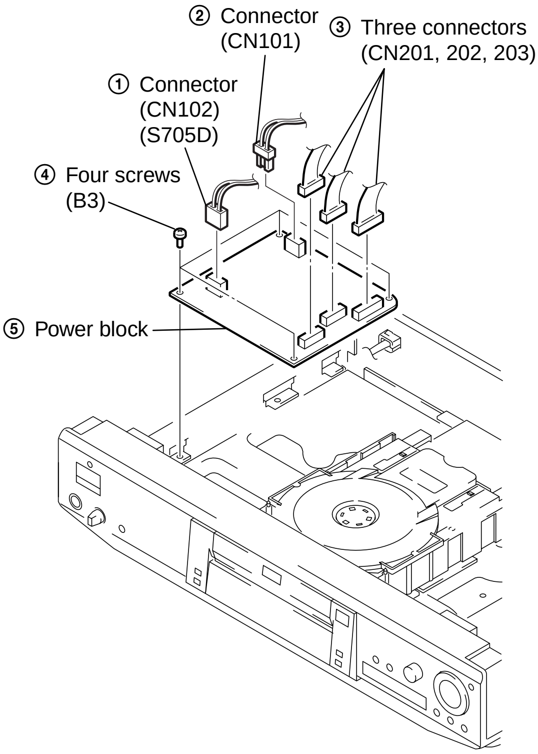
2-3. AU-208/212 BOARD REMOVAL (S330/S530D/S550D)


⑦ Three screws
(B3)
③ Two flat cables
(CN302, 303)
(S530D/S550D)
② Connector
(CN401)
(S530D/S550D)
④ Flat cable
(CN301)
⑧ AU-208 board (S330)
AU-212 board (S530D/S550D)
⑤ Four screws
(B3)
(S530D/S550D)
⑥ Four screws
(B3)
① Connector
(CN201)

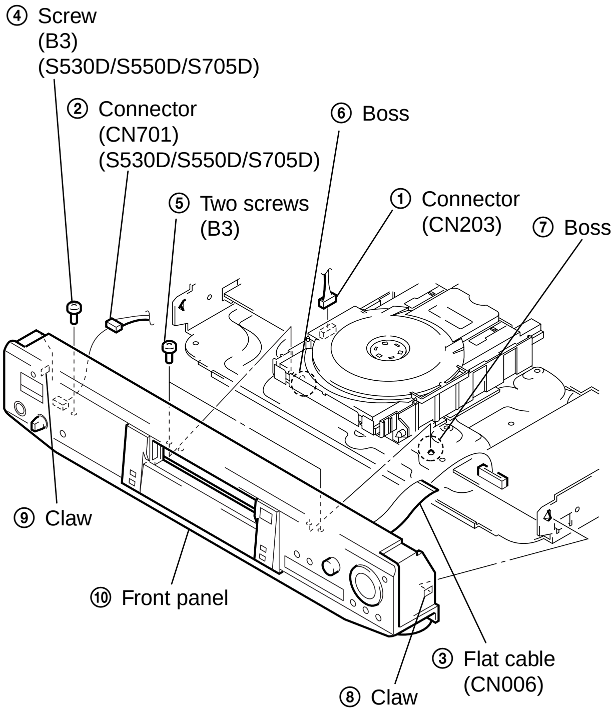
2-4. AU-210 BOARD REMOVAL (S705D)


⑤ Three screws
(B3)
③ Two connectors
(CN301, 404)
② Connector
(CN401)
④ Three flat cables
(CN402, 403, 405)
⑦ AU-210 board
⑥ Nine screws
(B3)
① Connector
(CN407)

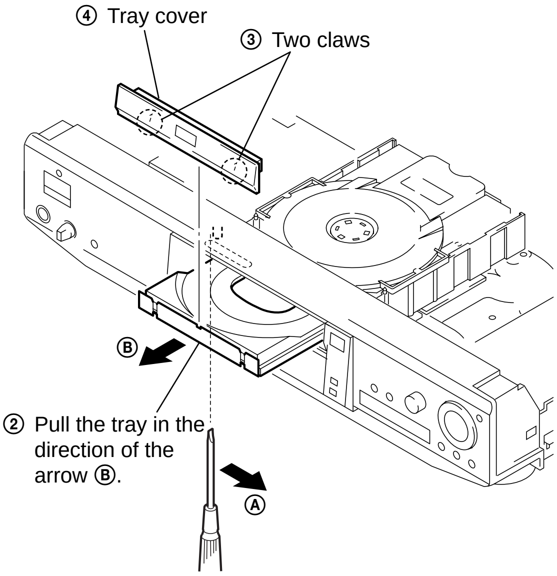
2-5. POWER BLOCK REMOVAL


② Connector
(CN101)
③ Three connectors
(CN201, 202, 203)
① Connector
(CN102)
(S705D)
④ Four screws
(B3)
⑤ Power block

2-7. FRONT PANEL REMOVAL


④ Screw
(B3)
(S530D/S550D/S705D)
② Connector
(CN701)
(S530D/S550D/S705D)
⑥ Boss
⑤ Two screws
(B3)
① Connector
(CN203)
⑦ Boss
⑨ Claw
⑩ Front panel
③ Flat cable
(CN006)
⑧ Claw

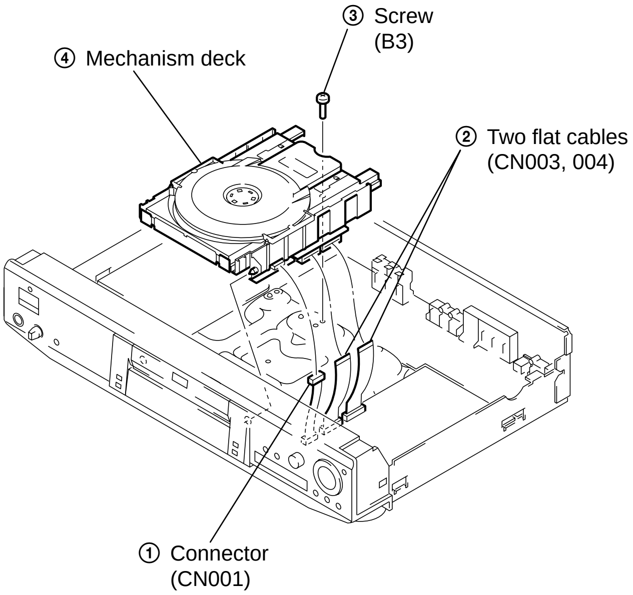
2-6. TRAY COVER REMOVAL


④ Tray cover
③ Two claws
Ⓑ
Ⓐ

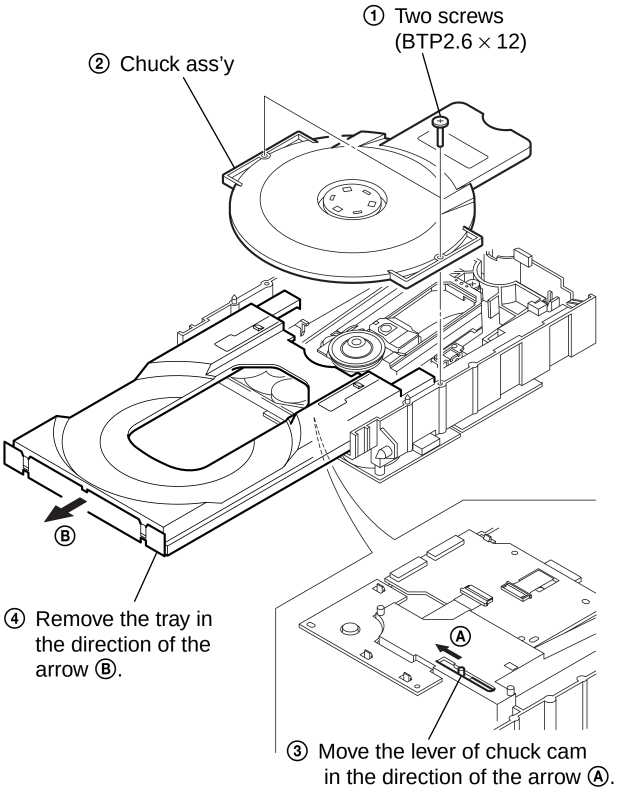
② Pull the tray in the direction of the arrow Ⓑ.

① Insert a tapering driver into the aperture of the unit bottom, and move the lever of chuck cam in the direction of the arrow Ⓐ.

2-8. MECHANISM DECK REMOVAL


③ Screw
(B3)
④ Mechanism deck
② Two flat cables
(CN003, 004)
① Connector
(CN001)

2-9. TRAY REMOVAL



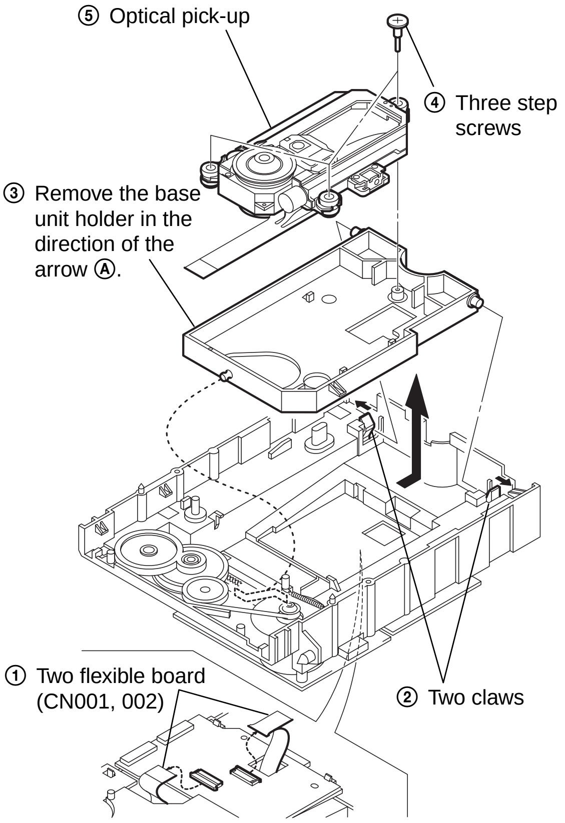
① Two screws (BTP2.6 × 12)

② Chuck ass'y

③ Move the lever of chuck cam in the direction of the arrow Ⓐ.

④ Remove the tray in the direction of the arrow Ⓑ.

2-10. OPTICAL PICK-UP REMOVAL



① Two flexible board (CN001, 002)

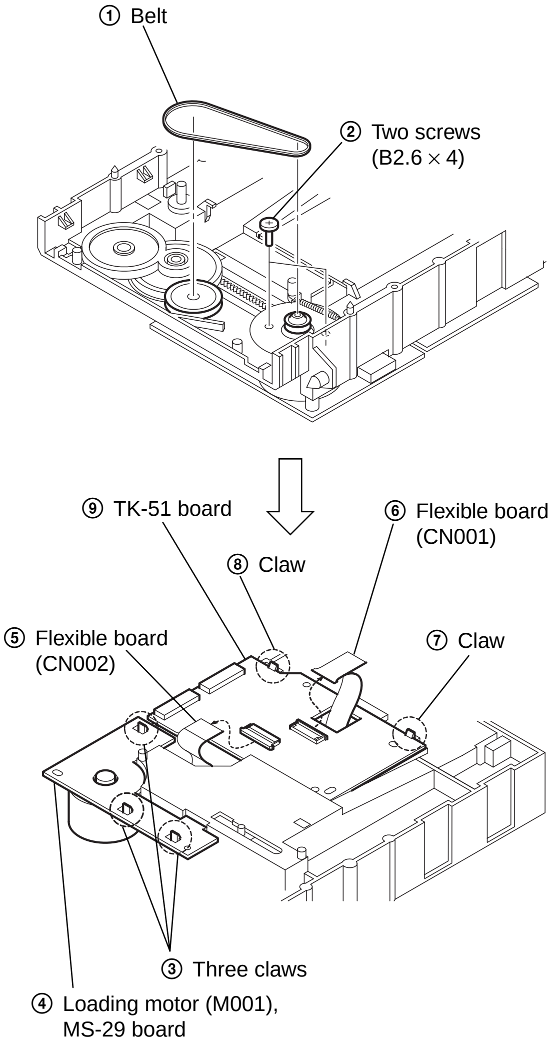
② Two claws

③ Remove the base unit holder in the direction of the arrow Ⓐ.

④ Three step screws

⑤ Optical pick-up

2-11. BELT, LOADING MOTOR (M001), MS-29/TK-51 BOARD REMOVAL



① Belt

② Two screws (B2.6 × 4)

③ Three claws

④ Loading motor (M001), MS-29 board

⑤ Flexible board (CN002)

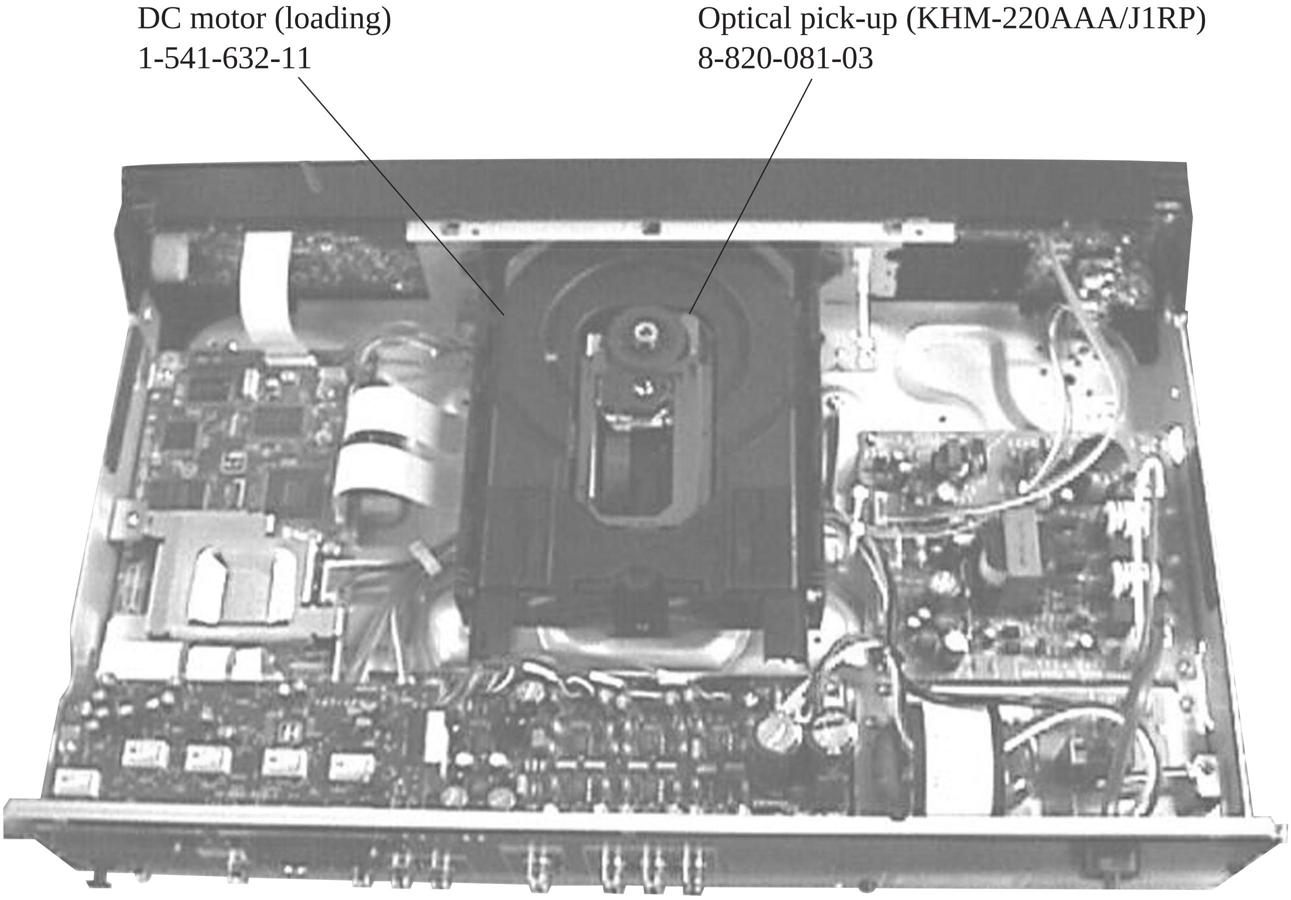
⑥ Flexible board (CN001)

⑦ Claw

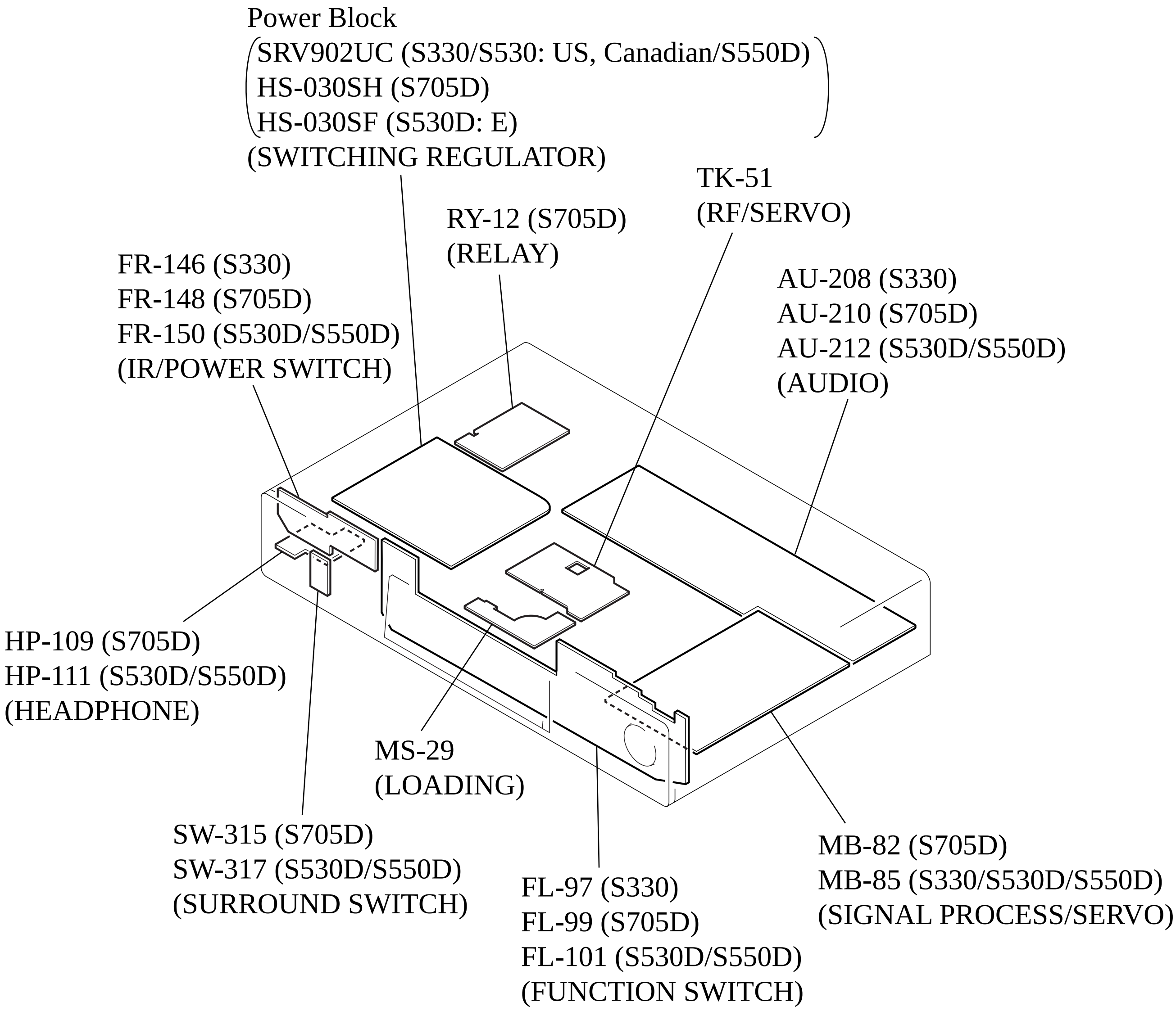
⑧ Claw

⑨ TK-51 board

2-12. INTERNAL VIEW

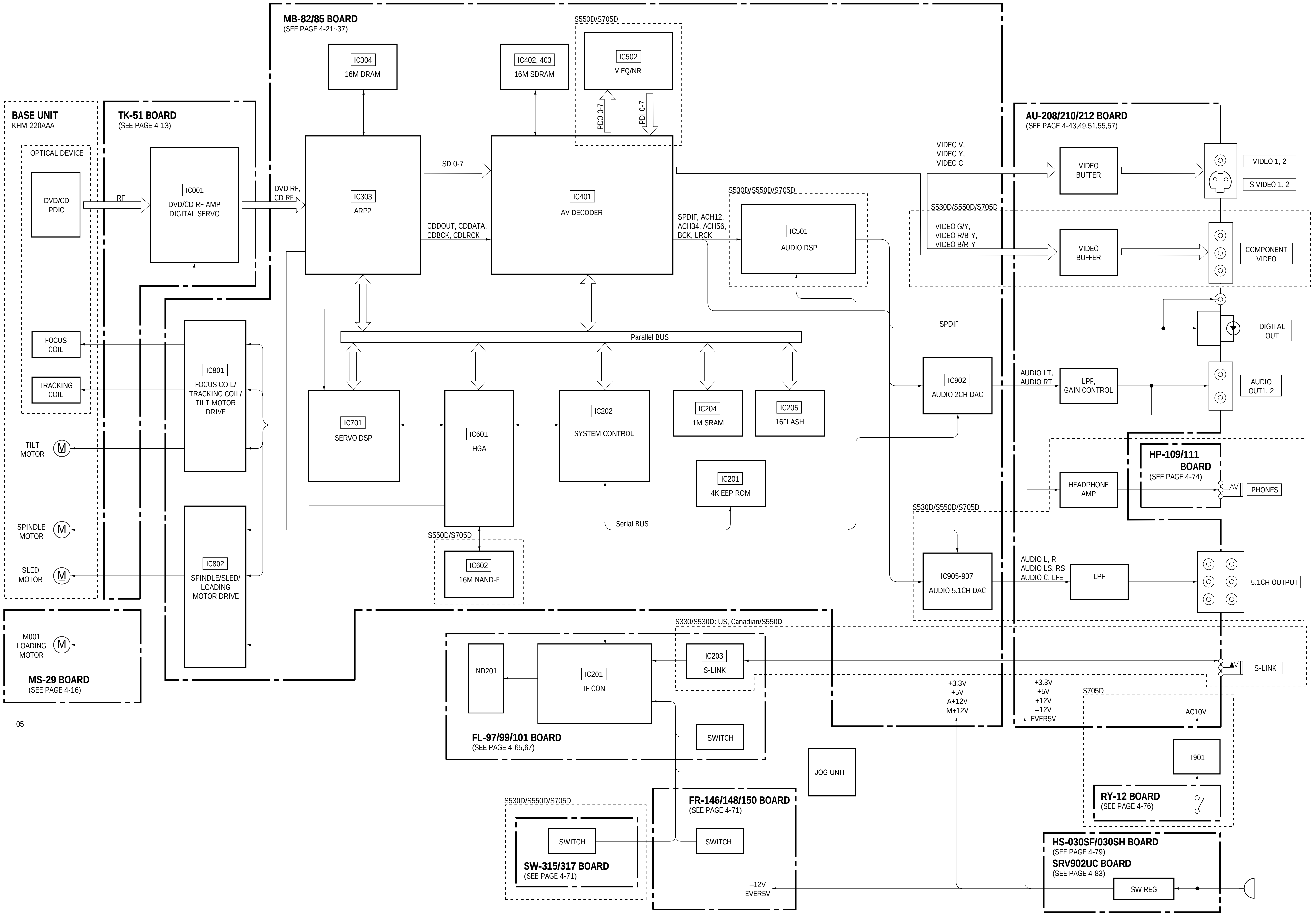

DC motor (loading)
1-541-632-11
Optical pick-up (KHM-220AAA/J1RP)
8-820-081-03

2-13. CIRCUIT BOARDS LOCATION

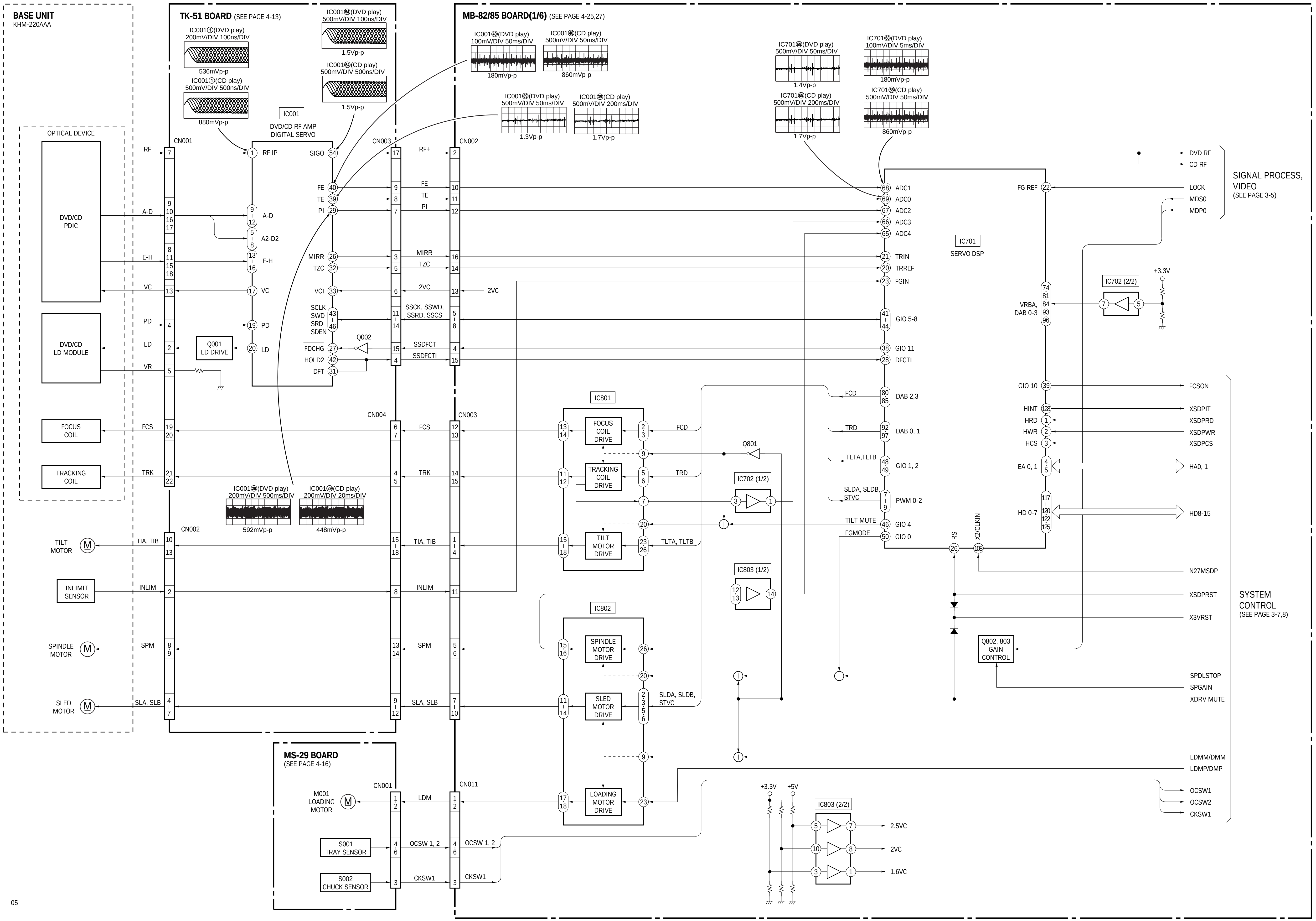

Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)
TK-51
(RF/SERVO)
RY-12 (S705D)
(RELAY)
FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)
AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)
HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)
MS-29
(LOADING)
SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)
FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)
MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

SECTION 3
BLOCK DIAGRAMS

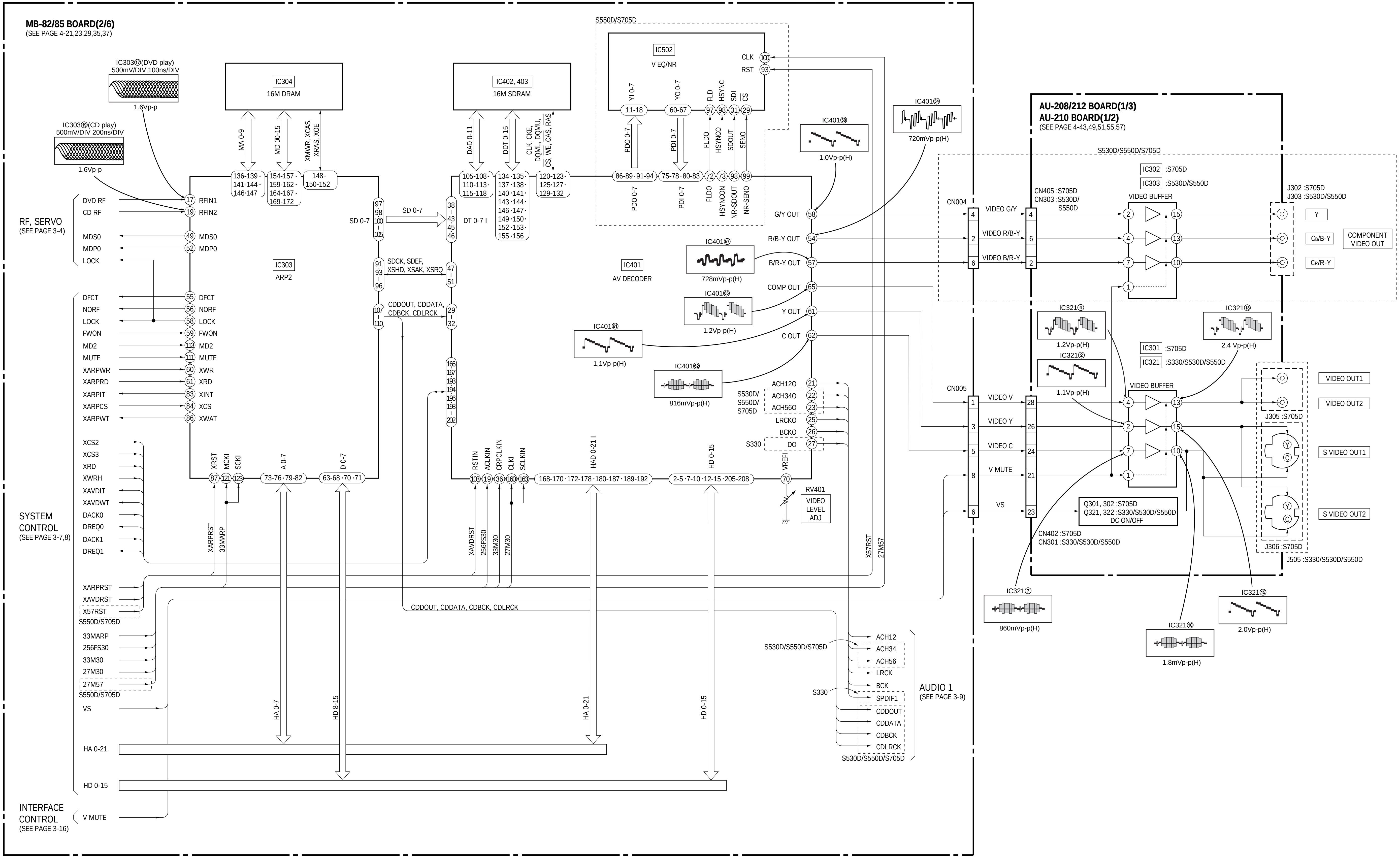
3-1. OVERALL BLOCK DIAGRAM


MB-82/85 BOARD
(SEE PAGE 4-21~37)
IC304
16M DRAM
IC402, 403
16M SDRAM
S550D/S705D
IC502
V EQ/NR
PDO 0-7
PDI 0-7
IC303
ARP2
SD 0-7
IC401
AV DECODER
DVD RF,
CD RF
CDDOUT, CDDATA,
CDBCK, CDLRCK
SPDIF, ACH12,
ACH34, ACH56,
BCK, LRCK
S530D/S550D/S705D
IC501
AUDIO DSP
VIDEO V,
VIDEO Y,
VIDEO C
BASE UNIT
KHM-220AAA
OPTICAL DEVICE
DVD/CD
PDIC
RF
TK-51 BOARD
(SEE PAGE 4-13)
IC001
DVD/CD RF AMP
DIGITAL SERVO
FOCUS
COIL
TRACKING
COIL
TILT
MOTOR
M
SPINDLE
MOTOR
M
SLED
MOTOR
M
IC801
FOCUS COIL/
TRACKING COIL/
TILT MOTOR
DRIVE
IC802
SPINDLE/SLED/
LOADING
MOTOR DRIVE
Parallel BUS
IC701
SERVO DSP
IC601
HGA
IC202
SYSTEM CONTROL
IC204
1M SRAM
IC205
16FLASH
IC201
4K EEP ROM
Serial BUS
S550D/S705D
IC602
16M NAND-F
M001
LOADING
MOTOR
M
MS-29 BOARD
(SEE PAGE 4-16)
05
AU-208/210/212 BOARD
(SEE PAGE 4-43,49,51,55,57)
VIDEO
BUFFER
VIDEO 1, 2
S VIDEO 1, 2
S530D/S550D/S705D
VIDEO G/Y,
VIDEO R/B-Y,
VIDEO B/R-Y
VIDEO
BUFFER
COMPONENT
VIDEO
SPDIF
DIGITAL
OUT
IC902
AUDIO 2CH DAC
AUDIO LT,
AUDIO RT
LPF,
GAIN CONTROL
AUDIO
OUT1, 2
HP-109/111
BOARD
(SEE PAGE 4-74)
HEADPHONE
AMP
PHONES
S530D/S550D/S705D
IC905-907
AUDIO 5.1CH DAC
AUDIO L, R
AUDIO LS, RS
AUDIO C, LFE
LPF
5.1CH OUTPUT
S330/S530D: US, Canadian/S550D
IC203
S-LINK
S-LINK
ND201
IC201
IF CON
SWITCH
FL-97/99/101 BOARD
(SEE PAGE 4-65,67)
JOG UNIT
+3.3V
+5V
A+12V
M+12V
+3.3V
+5V
+12V
–12V
EVER5V
S705D
AC10V
T901
RY-12 BOARD
(SEE PAGE 4-76)
S530D/S550D/S705D
SWITCH
SW-315/317 BOARD
(SEE PAGE 4-71)
FR-146/148/150 BOARD
(SEE PAGE 4-71)
SWITCH
–12V
EVER5V
HS-030SF/030SH BOARD
(SEE PAGE 4-79)
SRV902UC BOARD
(SEE PAGE 4-83)
SW REG

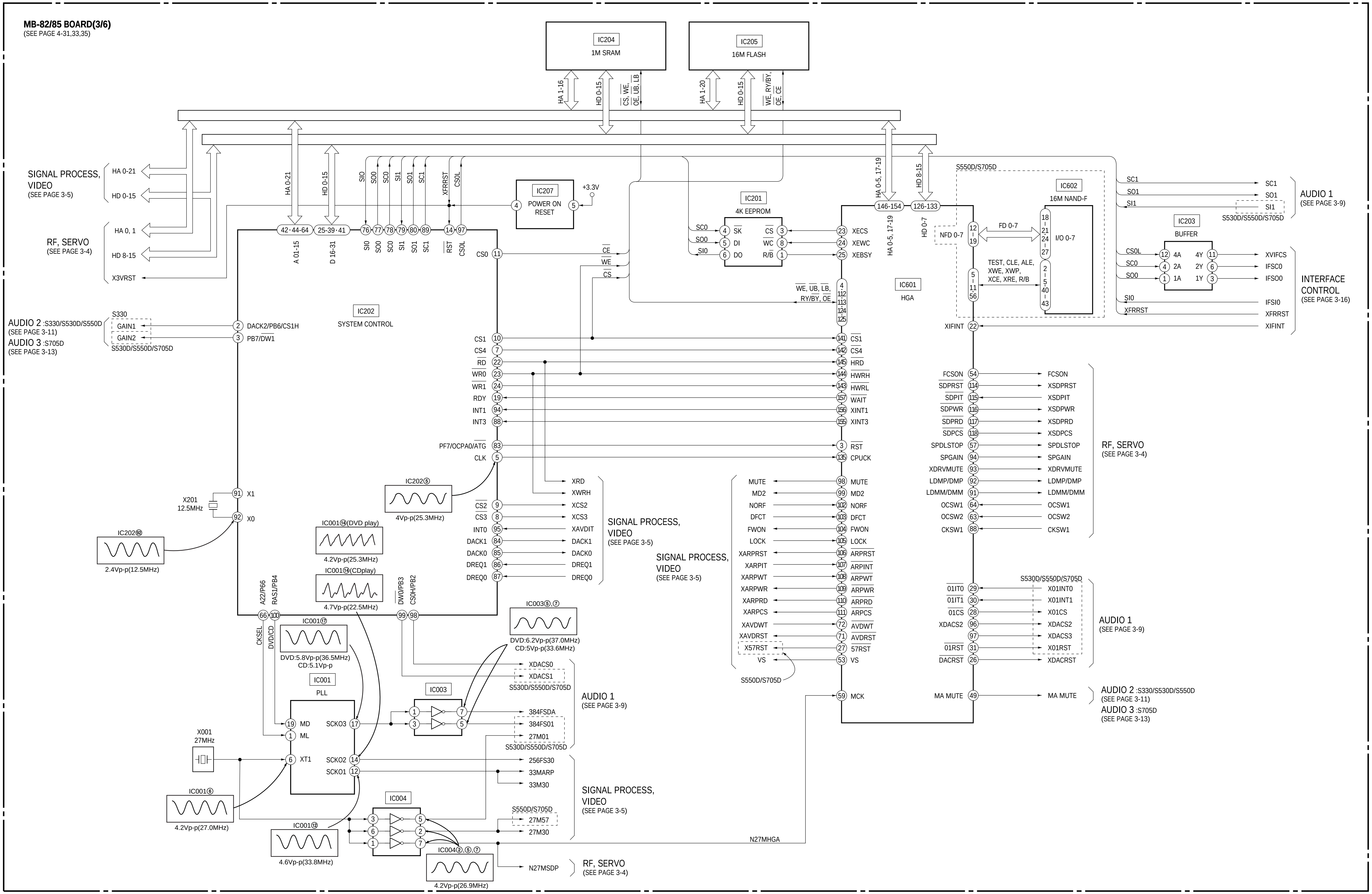
3-2. RF/SERVO BLOCK DIAGRAM


BASE UNIT
KHM-220AAA
OPTICAL DEVICE
DVD/CD PDIC
DVD/CD LD MODULE
FOCUS COIL
TRACKING COIL
TILT MOTOR
INLIMIT SENSOR
SPINDLE MOTOR
SLED MOTOR
RF
A-D
E-H
VC
PD
LD
VR
FCS
TRK
TIA, TIB
INLIM
SPM
SLA, SLB
TK-51 BOARD (SEE PAGE 4-13)
CN001
CN002
CN003
CN004
IC001①(DVD play) 200mV/DIV 100ns/DIV
536mVp-p
IC001①(CD play) 500mV/DIV 500ns/DIV
880mVp-p
IC001㊹(DVD play) 500mV/DIV 100ns/DIV
1.5Vp-p
IC001㊹(CD play) 500mV/DIV 500ns/DIV
1.5Vp-p
IC001
DVD/CD RF AMP DIGITAL SERVO
RF IP
A-D
A2-D2
E-H
VC
PD
LD
SIGO
FE
TE
PI
MIRR
TZC
VCI
SCLK SWD SRD SDEN
FDCHG
HOLD2
DFT
Q001 LD DRIVE
Q002
RF+
2VC
SSCK, SSWD, SSRD, SSCS
SSDFCT
SSDFCTI
IC001㉙(DVD play) 200mV/DIV 500ns/DIV
592mVp-p
IC001㉙(CD play) 200mV/DIV 20ms/DIV
448mVp-p
MB-82/85 BOARD(1/6) (SEE PAGE 4-25,27)
IC001㊵(DVD play) 100mV/DIV 50ms/DIV
180mVp-p
IC001㊵(CD play) 500mV/DIV 50ms/DIV
860mVp-p
IC001㊴(DVD play) 500mV/DIV 50ms/DIV
1.3Vp-p
IC001㊴(CD play) 500mV/DIV 200ms/DIV
1.7Vp-p
IC701㊾(DVD play) 500mV/DIV 50ms/DIV
1.4Vp-p
IC701㊾(CD play) 500mV/DIV 200ms/DIV
1.7Vp-p
IC701㊽(DVD play) 100mV/DIV 5ms/DIV
180mVp-p
IC701㊽(CD play) 500mV/DIV 50ms/DIV
860mVp-p
IC701
SERVO DSP
ADC1
ADC0
ADC2
ADC3
ADC4
TRIN
TRREF
FGIN
GIO 5-8
GIO 11
DFCTI
DAB 2,3
DAB 0, 1
GIO 1, 2
PWM 0-2
GIO 4
GIO 0
FG REF
VRBA, DAB 0-3
GIO 10
HINT
HRD
HWR
HCS
EA 0, 1
HD 0-7
RS
X2/CLKIN
IC702 (2/2)
+3.3V
DVD RF
CD RF
LOCK
MDS0
MDP0
SIGNAL PROCESS, VIDEO (SEE PAGE 3-5)
FCSON
XSDPIT
XSDPRD
XSDPWR
XSDPCS
HA0, 1
HD8-15
N27MSDP
XSDPRST
X3VRST
SYSTEM CONTROL (SEE PAGE 3-7,8)
SPDLSTOP
SPGAIN
XDRV MUTE
LDMM/DMM
LDMP/DMP
OCSW1
OCSW2
CKSW1
IC801
FOCUS COIL DRIVE
TRACKING COIL DRIVE
TILT MOTOR DRIVE
FCD
TRD
TLTA,TLTB
SLDA, SLDB, STVC
TILT MUTE
FGMODE
TLTA, TLTB
Q801
IC702 (1/2)
IC803 (1/2)
IC802
SPINDLE MOTOR DRIVE
SLED MOTOR DRIVE
LOADING MOTOR DRIVE
SLDA, SLDB, STVC
Q802, 803 GAIN CONTROL
IC803 (2/2)
+3.3V
+5V
2.5VC
2VC
1.6VC
MS-29 BOARD (SEE PAGE 4-16)
CN001
CN011
M001 LOADING MOTOR
S001 TRAY SENSOR
S002 CHUCK SENSOR
LDM
OCSW 1, 2
CKSW1
05

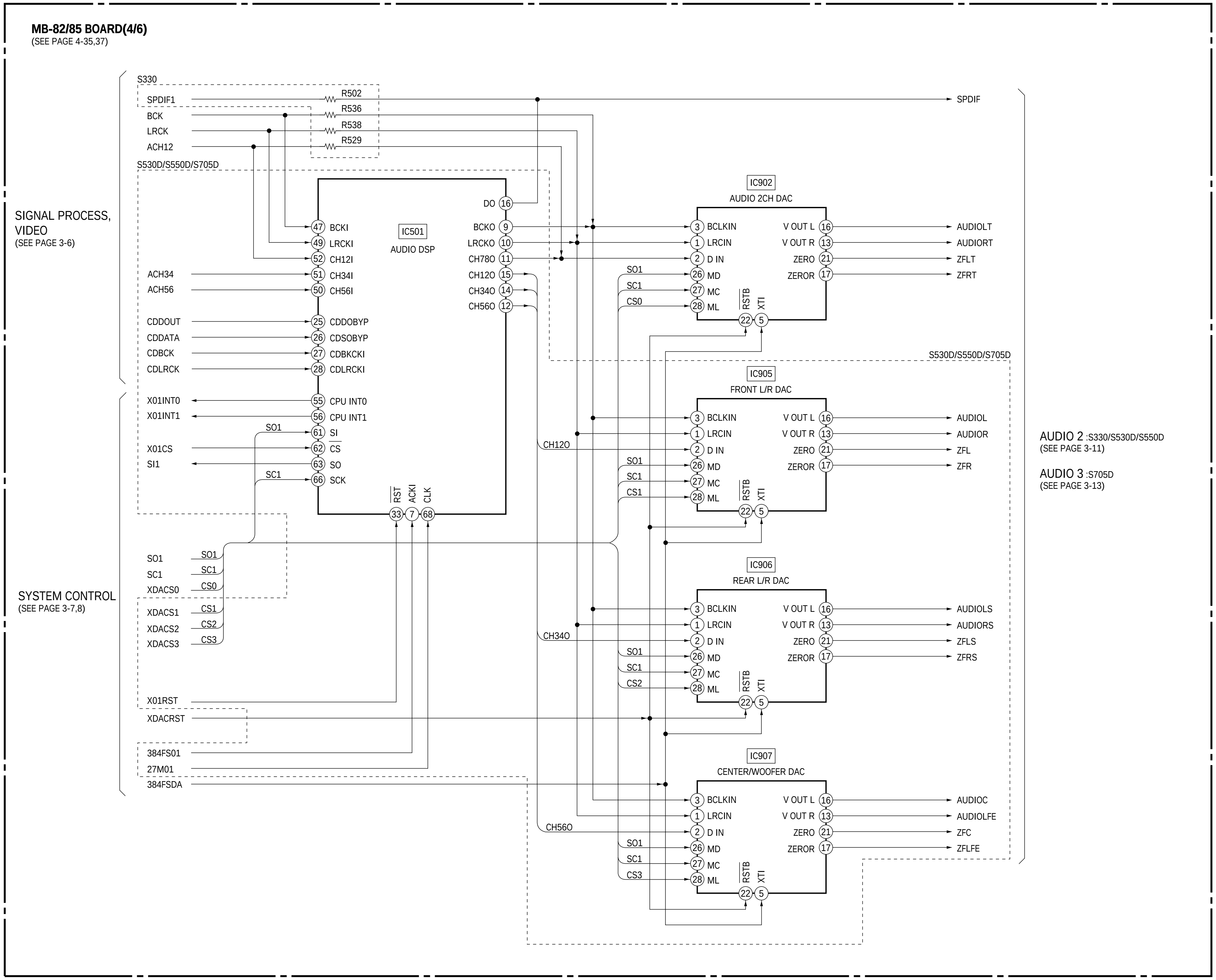
3-3. SIGNAL PROCESS/VIDEO BLOCK DIAGRAM


MB-82/85 BOARD(2/6)
(SEE PAGE 4-21,23,29,35,37)
IC303⑰(DVD play)
500mV/DIV 100ns/DIV
1.6Vp-p
IC303⑲(CD play)
500mV/DIV 200ns/DIV
1.6Vp-p
IC304
16M DRAM
MA 0-9
MD 00-15
XMWR, XCAS, XRAS, XOE
136-139 · 141-144 · 146-147
154-157 · 159-162 · 164-167 · 169-172
148 · 150-152
IC402, 403
16M SDRAM
DAD 0-11
DDT 0-15
CLK, CKE, DQML, DQMU, CS, WE, CAS, RAS
105-108 · 110-113 · 115-118
134-135 · 137-138 · 140-141 · 143-144 · 146-147 · 149-150 · 152-153 · 155-156
120-123 · 125-127 · 129-132
S550D/S705D
IC502
V EQ/NR
CLK 100
RST 93
YI 0-7
YO 0-7
FLD
HSYNC
SDI
CS
11-18
60-67
97 98 31 29
PDO 0-7
PDI 0-7
FLDO
HSYNCO
SDOUT
SENO
86-89 · 91-94
75-78 · 80-83
72 73 98 99
PDO 0-7
PDI 0-7
FLDO
HSYNCON
NR-SDOUT
NR-SENO
IC401㊳
1.0Vp-p(H)
IC401㊹
720mVp-p(H)
RF, SERVO
(SEE PAGE 3-4)
DVD RF
CD RF
MDS0
MDP0
LOCK
17 RFIN1
19 RFIN2
49 MDS0
52 MDP0
IC303
ARP2
97 98 100 – 105
SD 0-7
SD 0-7
38 – 43 45 46
DT 0-7
91 93 – 96
SDCK, SDEF, XSHD, XSAK, XSRQ
47 – 51
107 – 110
CDDOUT, CDDATA, CDBCK, CDLRCK
29 – 32
IC401
AV DECODER
G/Y OUT 58
R/B-Y OUT 54
B/R-Y OUT 57
COMP OUT 65
Y OUT 61
C OUT 62
IC401⑰
728mVp-p(H)
IC401⑯
1.2Vp-p(H)
IC401㉑
1,1Vp-p(H)
IC401㉒
816mVp-p(H)
DFCT
NORF
LOCK
FWON
MD2
MUTE
XARPWR
XARPRD
XARPIT
XARPCS
XARPWT
55 DFCT
56 NORF
58 LOCK
59 FWON
113 MD2
111 MUTE
60 XWR
61 XRD
83 XINT
84 XCS
86 XWAT
166 167 193 194 196 198 – 202
ACH12O 21
S530D/S550D/S705D
ACH34O 22
ACH56O 23
LRCKO 25
BCKO 26
S330
DO 27
SYSTEM CONTROL
(SEE PAGE 3-7,8)
XCS2
XCS3
XRD
XWRH
XAVDIT
XAVDWT
DACK0
DREQ0
DACK1
DREQ1
XRST
MCKI
SCKI
87 121 123
A 0-7
73-76 · 79-82
D 0-7
63-68 · 70 · 71
RSTIN
ACLKIN
CRPCLKIN
CLKI
SCLKIN
103 19 36 160 163
HAD 0-21
168-170 · 172-178 · 180-187 · 189-192
HD 0-15
2-5 · 7-10 · 12-15 · 205-208
VREFI
70
RV401
VIDEO LEVEL ADJ
XARPRST
33MARP
XAVDRST
256FS30
33M30
27M30
X57RST
27M57
XARPRST
XAVDRST
X57RST
S550D/S705D
CDDOUT, CDDATA, CDBCK, CDLRCK
33MARP
256FS30
33M30
27M30
27M57
S550D/S705D
VS
HA 0-7
HD 8-15
HA 0-21
HD 0-15
HA 0-21
HD 0-15
INTERFACE CONTROL
(SEE PAGE 3-16)
V MUTE
S530D/S550D/S705D
ACH12
ACH34
ACH56
LRCK
BCK
S330
SPDIF1
CDDOUT
CDDATA
CDBCK
CDLRCK
S530D/S550D/S705D
AUDIO 1
(SEE PAGE 3-9)
AU-208/212 BOARD(1/3)
AU-210 BOARD(1/2)
(SEE PAGE 4-43,49,51,55,57)
S530D/S550D/S705D
CN004
VIDEO G/Y
VIDEO R/B-Y
VIDEO B/R-Y
4 2 6
4 6 2
CN405 :S705D
CN303 :S530D/S550D
IC302 :S705D
IC303 :S530D/S550D
VIDEO BUFFER
2 4 7 1
15 13 10
J302 :S705D
J303 :S530D/S550D
Y
CB/B-Y
CR/R-Y
COMPONENT VIDEO OUT
IC321④
1.2Vp-p(H)
IC321②
1.1Vp-p(H)
IC321⑬
2.4 Vp-p(H)
IC301 :S705D
IC321 :S330/S530D/S550D
CN005
VIDEO V
VIDEO Y
VIDEO C
V MUTE
VS
1 3 5 8 6
28 26 24 21 23
VIDEO BUFFER
4 2 7 1
13 15 10
Q301, 302 :S705D
Q321, 322 :S330/S530D/S550D
DC ON/OFF
CN402 :S705D
CN301 :S330/S530D/S550D
VIDEO OUT1
VIDEO OUT2
J305 :S705D
S VIDEO OUT1
S VIDEO OUT2
Y
C
J306 :S705D
J505 :S330/S530D/S550D
IC321⑦
860mVp-p(H)
IC321⑩
1.8mVp-p(H)
IC321⑮
2.0Vp-p(H)
05

3-4. SYSTEM CONTROL BLOCK DIAGRAM


MB-82/85 BOARD(3/6)
(SEE PAGE 4-31,33,35)
IC204
1M SRAM
IC205
16M FLASH
HA 1-16
HD 0-15
CS, WE, OE, UB, LB
HA 1-20
HD 0-15
WE, RY/BY, OE, CE
SIGNAL PROCESS, VIDEO
(SEE PAGE 3-5)
HA 0-21
HD 0-15
RF, SERVO
(SEE PAGE 3-4)
HA 0, 1
HD 8-15
X3VRST
IC207
POWER ON RESET
+3.3V
IC201
4K EEPROM
SC0
SO0
SI0
SK
DI
DO
CS
WC
R/B
XECS
XEWC
XEBSY
IC202
SYSTEM CONTROL
IC601
HGA
IC602
16M NAND-F
I/O 0-7
FD 0-7
NFD 0-7
TEST, CLE, ALE, XWE, XWP, XCE, XRE, R/B
IC203
BUFFER
S550D/S705D
SC1
SO1
SI1
AUDIO 1
(SEE PAGE 3-9)
S530D/S550D/S705D
CS0L
XVIFCS
IFSC0
IFSO0
IFSI0
XFRRST
XIFINT
INTERFACE CONTROL
(SEE PAGE 3-16)
AUDIO 2 :S330/S530D/S550D
(SEE PAGE 3-11)
AUDIO 3 :S705D
(SEE PAGE 3-13)
S330
GAIN1
GAIN2
DACK2/PB6/CS1H
PB7/DW1
A 01-15
D 16-31
CS1
CS4
RD
WR0
WR1
RDY
INT1
INT3
PF7/OCPA0/ATG
CLK
HRD
HWRH
HWRL
WAIT
XINT1
XINT3
RST
CPUCK
X201
12.5MHz
X1
X0
IC202⑤
4Vp-p(25.3MHz)
IC202㊲
2.4Vp-p(12.5MHz)
IC001⑭(DVD play)
4.2Vp-p(25.3MHz)
IC001⑭(CDplay)
4.7Vp-p(22.5MHz)
XRD
XWRH
XCS2
XCS3
XAVDIT
DACK1
DACK0
DREQ1
DREQ0
MUTE
MD2
NORF
DFCT
FWON
LOCK
XARPRST
XARPIT
XARPWT
XARPWR
XARPRD
XARPCS
XAVDWT
XAVDRST
X57RST
VS
S550D/S705D
MCK
FCSON
XSDPRST
XSDPIT
XSDPWR
XSDPRD
XSDPCS
SPDLSTOP
SPGAIN
XDRVMUTE
LDMP/DMP
LDMM/DMM
OCSW1
OCSW2
CKSW1
01IT0
01IT1
01CS
XDACS2
01RST
DACRST
X01INT0
X01INT1
X01CS
XDACS3
X01RST
XDACRST
MA MUTE
IC003⑤,⑦
DVD:6.2Vp-p(37.0MHz)
CD:5Vp-p(33.6MHz)
IC001⑰
DVD:5.8Vp-p(36.5MHz)
CD:5.1Vp-p
IC001
PLL
IC003
MD
ML
XT1
SCKO3
SCKO2
SCKO1
CKSEL
DVD/CD
A22/P66
RAS1/PB4
DW0/PB3
CS0H/PB2
XDACS0
XDACS1
384FSDA
384FS01
27M01
256FS30
33MARP
33M30
X001
27MHz
IC001⑥
4.2Vp-p(27.0MHz)
IC001⑫
4.6Vp-p(33.8MHz)
IC004
27M57
27M30
N27MHGA
IC004②,⑤,⑦
4.2Vp-p(26.9MHz)
N27MSDP

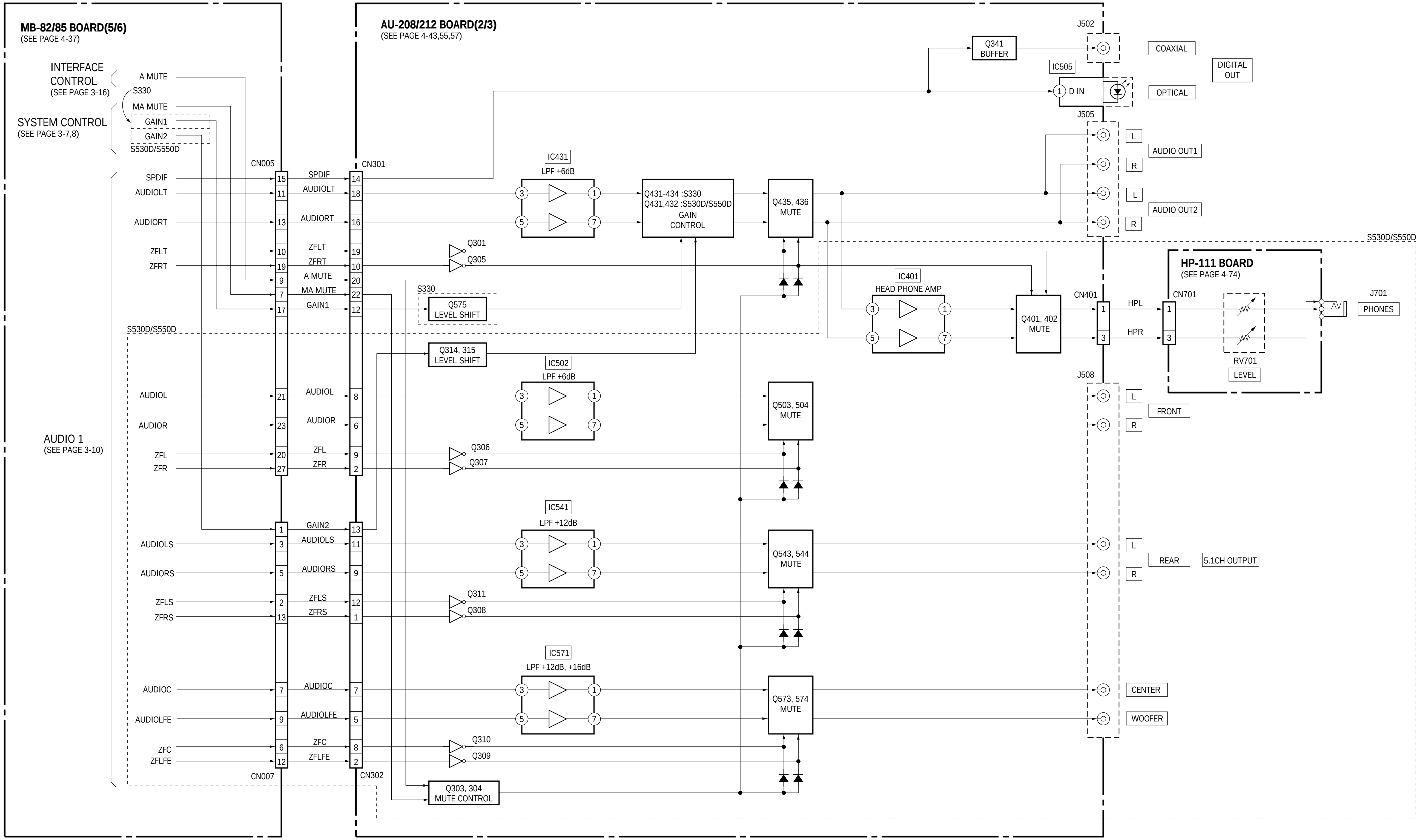
3-5. AUDIO (1) BLOCK DIAGRAM


MB-82/85 BOARD(4/6)
(SEE PAGE 4-35,37)
SIGNAL PROCESS, VIDEO
(SEE PAGE 3-6)
SYSTEM CONTROL
(SEE PAGE 3-7,8)
S330
SPDIF1
BCK
LRCK
ACH12
R502
R536
R538
R529
S530D/S550D/S705D
ACH34
ACH56
CDDOUT
CDDATA
CDBCK
CDLRCK
X01INT0
X01INT1
SO1
X01CS
SI1
SC1
IC501
AUDIO DSP
BCKI
LRCKI
CH12I
CH34I
CH56I
CDDOBYP
CDSOBYP
CDBKCKI
CDLRCKI
CPU INT0
CPU INT1
SI
CS
SO
SCK
RST
ACKI
CLK
DO
BCKO
LRCKO
CH78O
CH12O
CH34O
CH56O
SO1
SC1
XDACS0
CS0
XDACS1
CS1
XDACS2
CS2
XDACS3
CS3
X01RST
XDACRST
384FS01
27M01
384FSDA
IC902
AUDIO 2CH DAC
IC905
FRONT L/R DAC
IC906
REAR L/R DAC
IC907
CENTER/WOOFER DAC
BCLKIN
LRCIN
D IN
MD
MC
ML
RSTB
XTI
V OUT L
V OUT R
ZERO
ZEROR
CH12O
CH34O
CH56O
SPDIF
AUDIOLT
AUDIORT
ZFLT
ZFRT
AUDIOL
AUDIOR
ZFL
ZFR
AUDIOLS
AUDIORS
ZFLS
ZFRS
AUDIOC
AUDIOLFE
ZFC
ZFLFE
S530D/S550D/S705D
AUDIO 2 :S330/S530D/S550D
(SEE PAGE 3-11)
AUDIO 3 :S705D
(SEE PAGE 3-13)

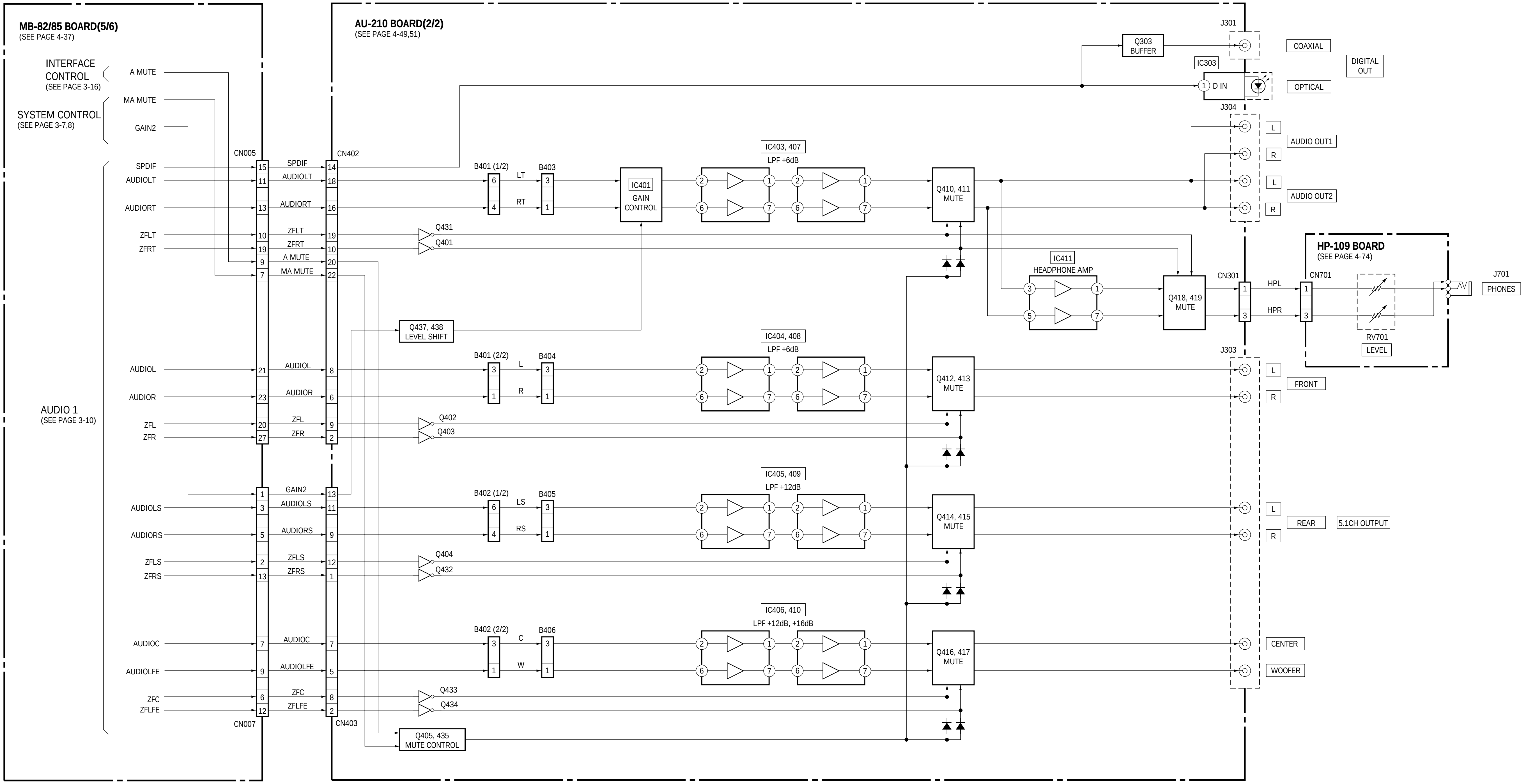
05

3-6. AUDIO (2) BLOCK DIAGRAM

– DVP-S330/S530D/S550D –

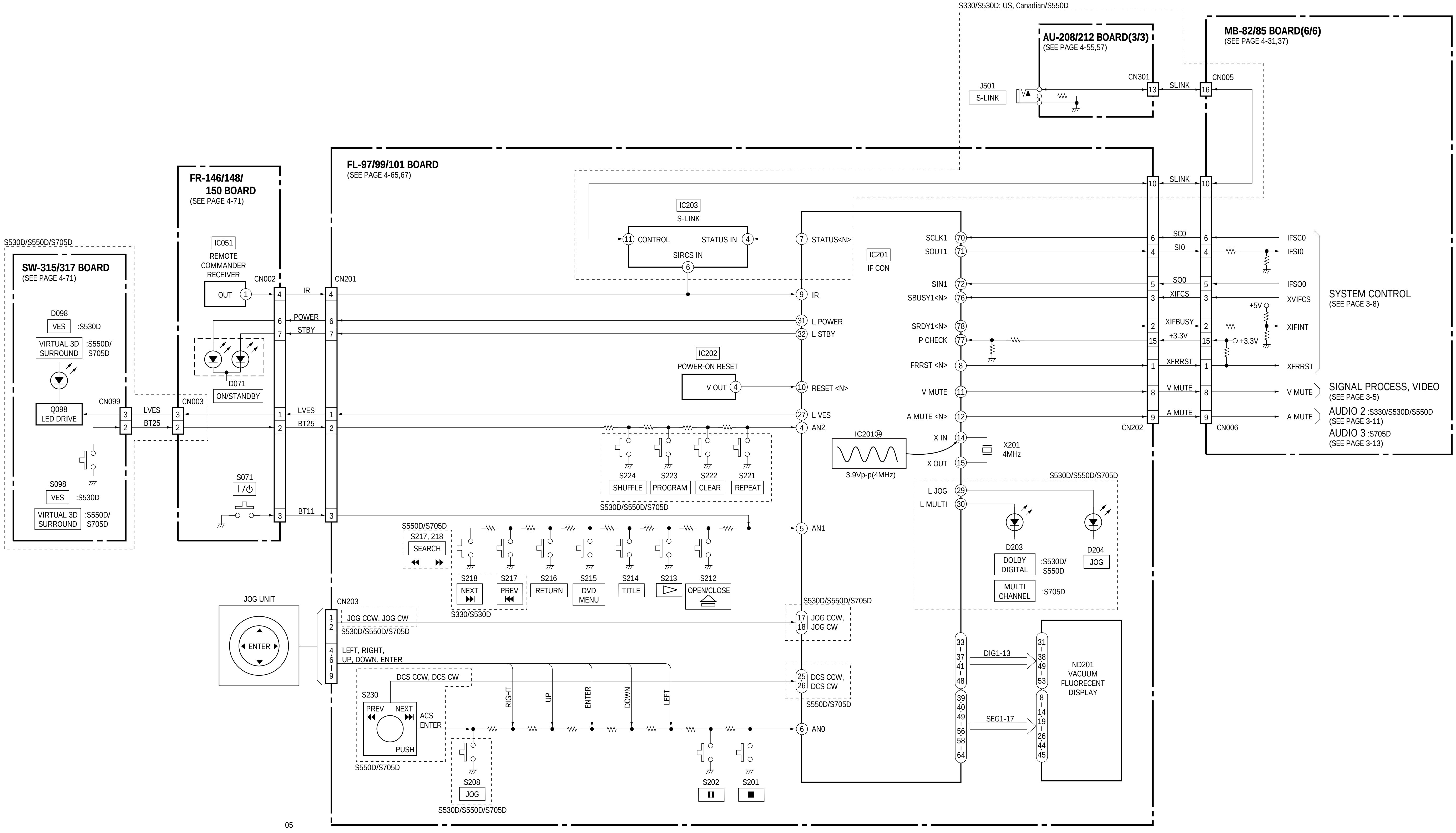

MB-82/85 BOARD(5/6)
(SEE PAGE 4-37)
INTERFACE CONTROL
(SEE PAGE 3-16)
SYSTEM CONTROL
(SEE PAGE 3-7,8)
A MUTE
S330
MA MUTE
GAIN1
GAIN2
S530D/S550D
AUDIO 1
(SEE PAGE 3-10)
SPDIF
AUDIOLT
AUDIORT
ZFLT
ZFRT
AUDIOL
AUDIOR
ZFL
ZFR
AUDIOLS
AUDIORS
ZFLS
ZFRS
AUDIOC
AUDIOLFE
ZFC
ZFLFE
CN005
CN007
CN301
CN302
AU-208/212 BOARD(2/3)
(SEE PAGE 4-43,55,57)
Q341
BUFFER
IC505
D IN
J502
COAXIAL
OPTICAL
DIGITAL OUT
J505
AUDIO OUT1
AUDIO OUT2
L
R
IC431
LPF +6dB
Q431-434 :S330
Q431,432 :S530D/S550D
GAIN CONTROL
Q435, 436
MUTE
Q301
Q305
S330
Q575
LEVEL SHIFT
Q314, 315
LEVEL SHIFT
S530D/S550D
IC401
HEAD PHONE AMP
Q401, 402
MUTE
CN401
HPL
HPR
HP-111 BOARD
(SEE PAGE 4-74)
CN701
RV701
LEVEL
J701
PHONES
IC502
LPF +6dB
Q503, 504
MUTE
J508
FRONT
Q306
Q307
IC541
LPF +12dB
Q543, 544
MUTE
REAR
5.1CH OUTPUT
Q311
Q308
IC571
LPF +12dB, +16dB
Q573, 574
MUTE
CENTER
WOOFER
Q310
Q309
Q303, 304
MUTE CONTROL
05

3-7. AUDIO (3) BLOCK DIAGRAM
– DVP-S705D –

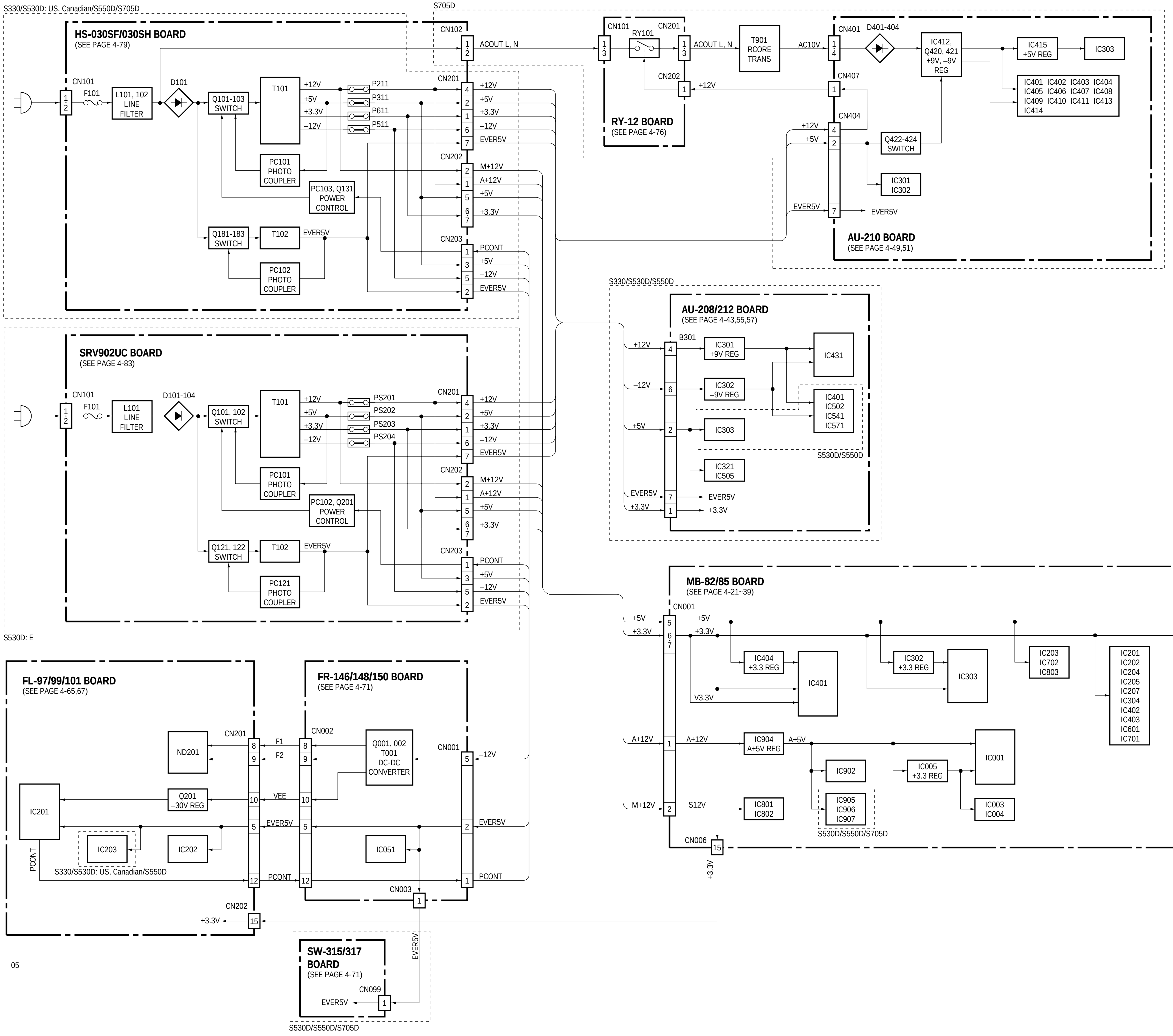

MB-82/85 BOARD(5/6)
(SEE PAGE 4-37)
INTERFACE CONTROL
(SEE PAGE 3-16)
SYSTEM CONTROL
(SEE PAGE 3-7,8)
A MUTE
MA MUTE
GAIN2
SPDIF
AUDIOLT
AUDIORT
ZFLT
ZFRT
AUDIOL
AUDIOR
ZFL
ZFR
AUDIO 1
(SEE PAGE 3-10)
AUDIOLS
AUDIORS
ZFLS
ZFRS
AUDIOC
AUDIOLFE
ZFC
ZFLFE
CN005
CN007
AU-210 BOARD(2/2)
(SEE PAGE 4-49,51)
CN402
CN403
Q437, 438
LEVEL SHIFT
Q405, 435
MUTE CONTROL
Q431
Q401
Q402
Q403
Q404
Q432
Q433
Q434
B401 (1/2)
B403
LT
RT
IC401
GAIN CONTROL
IC403, 407
LPF +6dB
Q410, 411
MUTE
B401 (2/2)
B404
L
R
IC404, 408
LPF +6dB
Q412, 413
MUTE
B402 (1/2)
B405
LS
RS
IC405, 409
LPF +12dB
Q414, 415
MUTE
B402 (2/2)
B406
C
W
IC406, 410
LPF +12dB, +16dB
Q416, 417
MUTE
IC411
HEADPHONE AMP
Q418, 419
MUTE
CN301
HPL
HPR
Q303
BUFFER
IC303
D IN
J301
J304
J303
COAXIAL
OPTICAL
DIGITAL OUT
AUDIO OUT1
AUDIO OUT2
FRONT
REAR
5.1CH OUTPUT
CENTER
WOOFER
HP-109 BOARD
(SEE PAGE 4-74)
CN701
RV701
LEVEL
J701
PHONES

05

3-8. INTERFACE CONTROL BLOCK DIAGRAM


S330/S530D: US, Canadian/S550D
AU-208/212 BOARD(3/3)
(SEE PAGE 4-55,57)
J501
S-LINK
CN301
13
SLINK
MB-82/85 BOARD(6/6)
(SEE PAGE 4-31,37)
CN005
16
FL-97/99/101 BOARD
(SEE PAGE 4-65,67)
FR-146/148/
150 BOARD
(SEE PAGE 4-71)
S530D/S550D/S705D
SW-315/317 BOARD
(SEE PAGE 4-71)
IC203
S-LINK
CONTROL
STATUS IN
SIRCS IN
IC051
REMOTE
COMMANDER
RECEIVER
OUT
CN002
CN201
IR
POWER
STBY
LVES
BT25
BT11
D098
VES
:S530D
VIRTUAL 3D SURROUND
:S550D/ S705D
D071
ON/STANDBY
Q098
LED DRIVE
CN099
CN003
S098
S071
I/⏻
IC201
IF CON
STATUS<N>
IR
L POWER
L STBY
IC202
POWER-ON RESET
V OUT
RESET <N>
L VES
AN2
AN1
AN0
SCLK1
SOUT1
SIN1
SBUSY1<N>
SRDY1<N>
P CHECK
FRRST <N>
V MUTE
A MUTE <N>
X IN
X OUT
IC201⑭
3.9Vp-p(4MHz)
X201
4MHz
SLINK
SC0
SI0
SO0
XIFCS
XIFBUSY
+3.3V
XFRRST
V MUTE
A MUTE
CN202
CN006
IFSC0
IFSI0
IFSO0
XVIFCS
XIFINT
XFRRST
V MUTE
A MUTE
+5V
+3.3V
SYSTEM CONTROL
(SEE PAGE 3-8)
SIGNAL PROCESS, VIDEO
(SEE PAGE 3-5)
AUDIO 2 :S330/S530D/S550D
(SEE PAGE 3-11)
AUDIO 3 :S705D
(SEE PAGE 3-13)
S224 SHUFFLE
S223 PROGRAM
S222 CLEAR
S221 REPEAT
S530D/S550D/S705D
S550D/S705D
S217, 218
SEARCH
S218 NEXT
S217 PREV
S216 RETURN
S215 DVD MENU
S214 TITLE
S213
S212 OPEN/CLOSE
S330/S530D
S530D/S550D/S705D
L JOG
L MULTI
D203
DOLBY DIGITAL
:S530D/ S550D
MULTI CHANNEL
:S705D
D204
JOG
JOG UNIT
ENTER
CN203
JOG CCW, JOG CW
S530D/S550D/S705D
LEFT, RIGHT,
UP, DOWN, ENTER
DCS CCW, DCS CW
S230
PREV
NEXT
PUSH
ACS ENTER
S550D/S705D
RIGHT
UP
ENTER
DOWN
LEFT
S530D/S550D/S705D
JOG CCW,
JOG CW
DCS CCW,
DCS CW
S550D/S705D
S208
JOG
S530D/S550D/S705D
S202
S201
DIG1-13
SEG1-17
ND201
VACUUM
FLUORECENT
DISPLAY
05

3-9. POWER BLOCK DIAGRAM


S330/S530D: US, Canadian/S550D/S705D
HS-030SF/030SH BOARD
(SEE PAGE 4-79)
CN101
F101
L101, 102 LINE FILTER
D101
Q101-103 SWITCH
T101
+12V
+5V
+3.3V
–12V
P211
P311
P611
P511
PC101 PHOTO COUPLER
PC103, Q131 POWER CONTROL
Q181-183 SWITCH
T102
EVER5V
PC102 PHOTO COUPLER
CN102
ACOUT L, N
CN201
EVER5V
CN202
M+12V
A+12V
CN203
PCONT
S705D
CN101
RY101
CN201
ACOUT L, N
T901 RCORE TRANS
CN202
RY-12 BOARD
(SEE PAGE 4-76)
AC10V
CN401
D401-404
IC412, Q420, 421 +9V, –9V REG
IC415 +5V REG
IC303
IC401 IC402 IC403 IC404 IC405 IC406 IC407 IC408 IC409 IC410 IC411 IC413 IC414
CN407
CN404
Q422-424 SWITCH
IC301 IC302
AU-210 BOARD
(SEE PAGE 4-49,51)
SRV902UC BOARD
(SEE PAGE 4-83)
D101-104
L101 LINE FILTER
Q101, 102 SWITCH
PS201
PS202
PS203
PS204
PC102, Q201 POWER CONTROL
Q121, 122 SWITCH
PC121 PHOTO COUPLER
S530D: E
S330/S530D/S550D
AU-208/212 BOARD
(SEE PAGE 4-43,55,57)
B301
IC301 +9V REG
IC302 –9V REG
IC431
IC401 IC502 IC541 IC571
IC303
IC321 IC505
S530D/S550D
MB-82/85 BOARD
(SEE PAGE 4-21~39)
CN001
CN002
IC404 +3.3 REG
IC401
V3.3V
IC302 +3.3 REG
IC303
IC203 IC702 IC803
IC201 IC202 IC204 IC205 IC207 IC304 IC402 IC403 IC601 IC701
S550D/S705D
IC502 IC602
IC501
S530D/S550D/S705D
IC904 A+5V REG
A+5V
IC902
IC905 IC906 IC907
IC005 +3.3 REG
IC001
IC003 IC004
S12V
IC801 IC802
CN006
TK-51 BOARD
(SEE PAGE 4-13)
CN003
CN001
VCC (5V)
IC001
OPTICAL DEVICE
FL-97/99/101 BOARD
(SEE PAGE 4-65,67)
ND201
IC201
Q201 –30V REG
IC203
IC202
S330/S530D: US, Canadian/S550D
PCONT
CN201
CN202
F1
F2
VEE
FR-146/148/150 BOARD
(SEE PAGE 4-71)
CN002
Q001, 002 T001 DC-DC CONVERTER
IC051
CN003
SW-315/317 BOARD
(SEE PAGE 4-71)
CN099
S530D/S550D/S705D
05

SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary mote is printed in each block.)

For printed wiring boards:
- ○—— : indicates a lead wire mounted on the component side.
- ●—— : indicates a lead wire mounted on the printed side.
- ○ : Through hole.
- ▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

- Abbreviation
  CND : Canadian

For schematic Diagram:
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, $^1/_4$ W (Chip resistors : $^1/_{10}$ W) unless otherwise specified.
  kΩ : 1000 Ω, MW : 1000 kΩ.
- All capacitors are in μF unless otherwise noted. pF : μμF 50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- —▭— : nonflammable resistor.
- —∿•• — : fusible resistor.
- ▭ : panel designation.
- △ : internal component.
- ▭ : adjustment for repair.
- **B +** : B+ Line.
- **B –** : B– Line.
- Circled numbers refer to waveforms.
- Voltages are dc between measurement point.
- Readings are taken with a color-bar signals on DVD reference disc and when playing CD reference disc.
- Readings are taken with a digital multimeter (DC 10 MW).
- Voltage variations may be noted due to normal production tolerances.

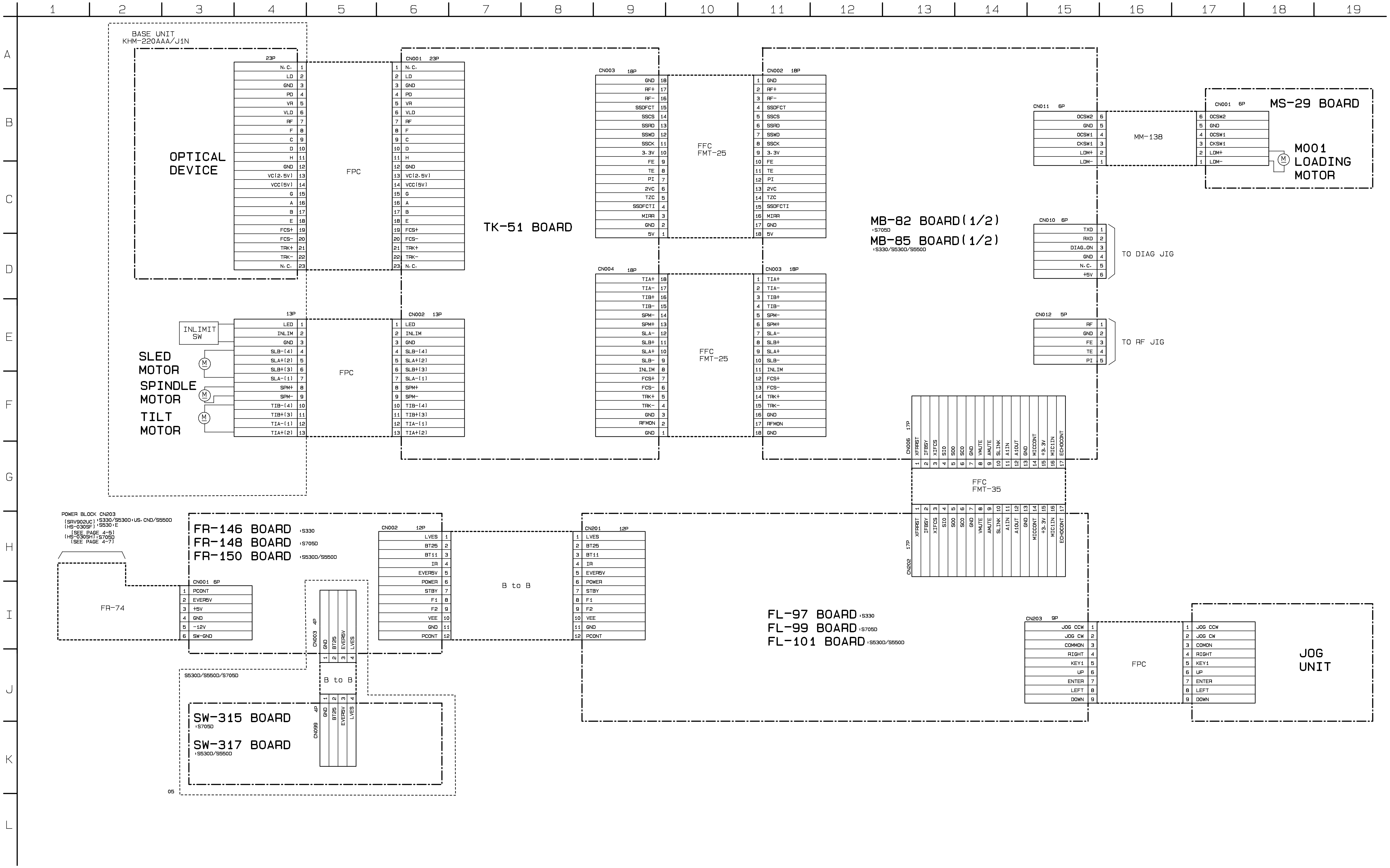
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

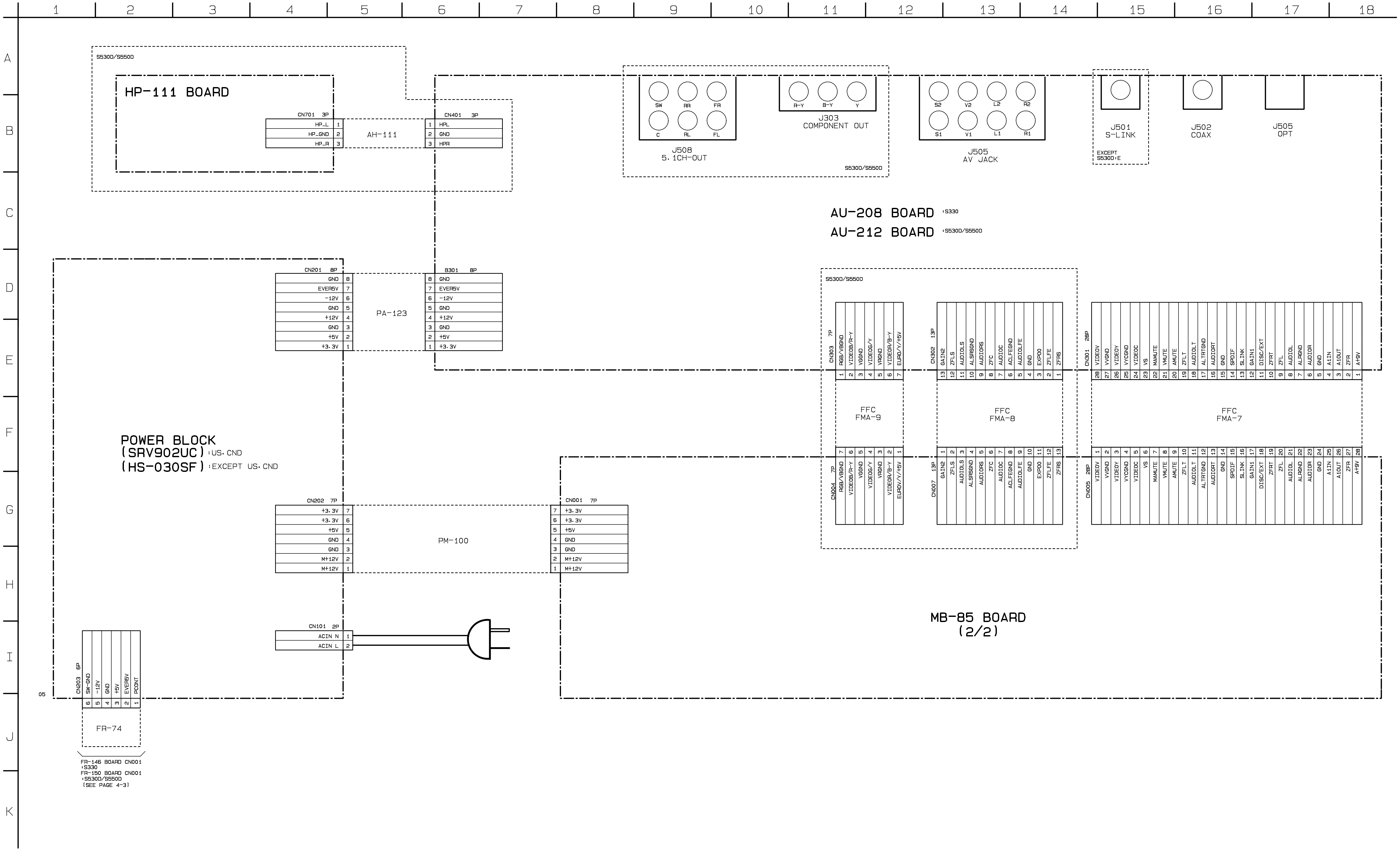
- Abbreviation
  CND : Canadian

4-1. FRAME SCHEMATIC DIAGRAM

FRAME (1) SCHEMATIC DIAGRAM


BASE UNIT
KHM-220AAA/J1N
OPTICAL DEVICE
FPC
TK-51 BOARD
CN001 23P
CN002 13P
CN003 18P
CN004 18P
INLIMIT SW
SLED MOTOR
SPINDLE MOTOR
TILT MOTOR
FFC FMT-25
MB-82 BOARD(1/2) :S705D
MB-85 BOARD(1/2) :S330/S530D/S550D
CN002 18P
CN003 18P
CN011 6P
CN010 6P
CN012 5P
CN006 17P
TO DIAG JIG
TO RF JIG
MM-138
MS-29 BOARD
CN001 6P
M001 LOADING MOTOR
FFC FMT-35
POWER BLOCK CN203
(SRV902UC):S330/S530D:US,CND/S550D
(HS-030SF):S530:E
(SEE PAGE 4-5)
(HS-030SH):S705D
(SEE PAGE 4-7)
FR-74
FR-146 BOARD :S330
FR-148 BOARD :S705D
FR-150 BOARD :S530D/S550D
CN001 6P
CN002 12P
CN003 4P
B to B
S530D/S550D/S705D
SW-315 BOARD :S705D
SW-317 BOARD :S530D/S550D
CN099 4P
CN201 12P
CN202 17P
FL-97 BOARD :S330
FL-99 BOARD :S705D
FL-101 BOARD :S530D/S550D
CN203 9P
JOG UNIT
05

FRAME (2) SCHEMATIC DIAGRAM
– DVP-S330/S530D/S550D –


1
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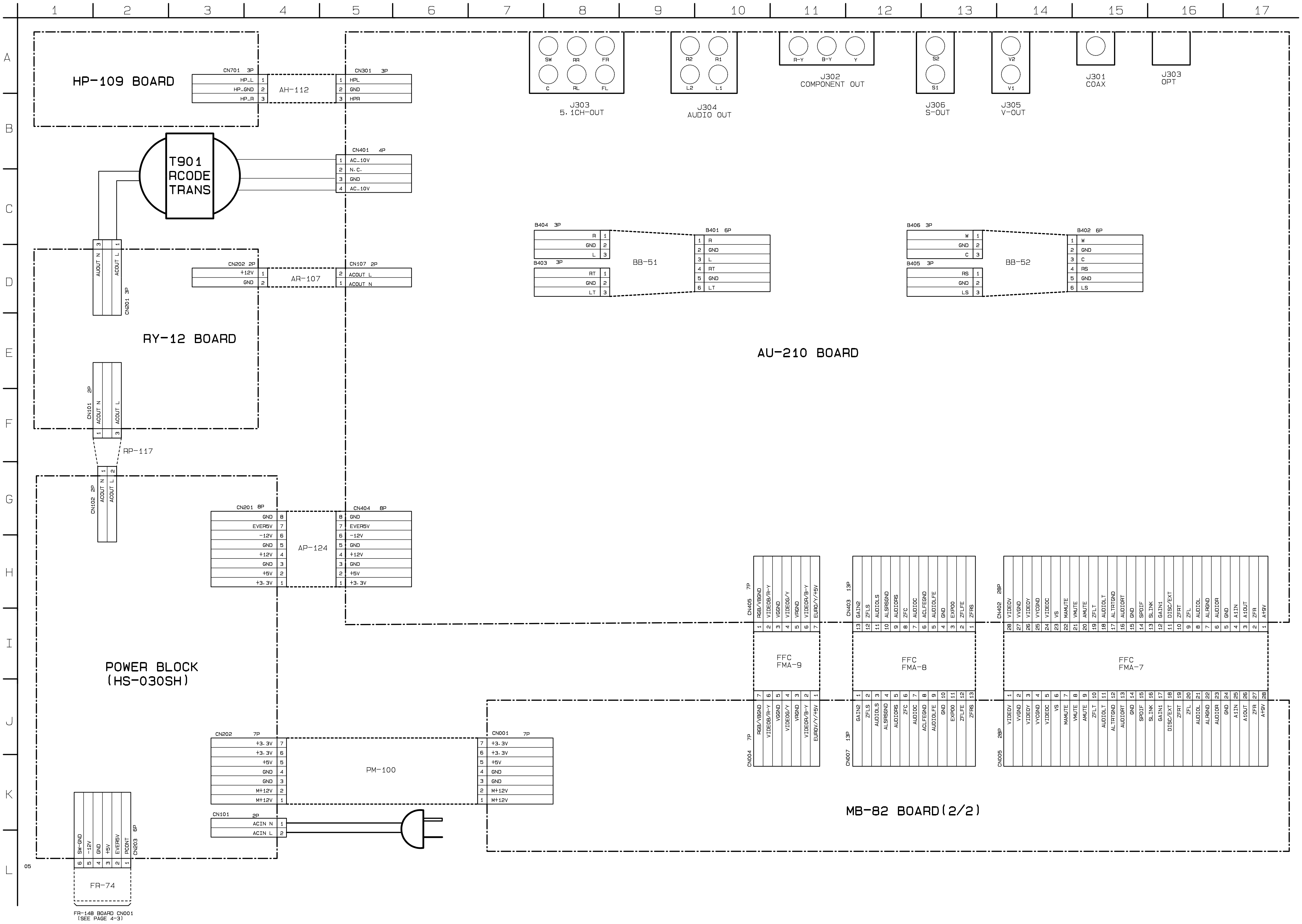
12
13
14
15
16
17
18
A
B
C
D
E
F
G
H
I
J
K
S530D/S550D
HP-111 BOARD
CN701 3P
HP_L 1
HP_GND 2
HP_R 3
AH-111
CN401 3P
1 HPL
2 GND
3 HPR
SW RR FR
C RL FL
J508
5.1CH-OUT
R-Y B-Y Y
J303
COMPONENT OUT
S530D/S550D
S2 V2 L2 R2
S1 V1 L1 R1
J505
AV JACK
J501
S-LINK
EXCEPT S530D:E
J502
COAX
J505
OPT
AU-208 BOARD :S330
AU-212 BOARD :S530D/S550D
CN201 8P
GND 8
EVER5V 7
-12V 6
GND 5
+12V 4
GND 3
+5V 2
+3.3V 1
PA-123
B301 8P
8 GND
7 EVER5V
6 -12V
5 GND
4 +12V
3 GND
2 +5V
1 +3.3V
S530D/S550D
CN303 7P
RGB/VBGND VIDEOB/R-Y VGGND VIDEOG/Y VRGND VIDEOR/B-Y EURO/Y/+5V
CN302 13P
GAIN2 ZFLS AUDIOLS ALSRSGND AUDIORS ZFC AUDIOC ACLFEGND AUDIOLFE GND EXPOO ZFLFE ZFRS
CN301 28P
VIDEOV VVGND VIDEOY VYCGND VIDEOC VS MAMUTE VMUTE AMUTE ZFLT AUDIOLT ALTRTGND AUDIORT GND SPDIF SLINK GAIN1 DISC/EXT ZFRT ZFL AUDIOL ALRGND AUDIOR GND A1IN A1OUT ZFR A+9V
FFC
FMA-9
FFC
FMA-8
FFC
FMA-7
CN004 7P
RGB/VBGND VIDEOB/R-Y VGGND VIDEOG/Y VRGND VIDEOR/B-Y EUROV/Y/+5V
CN007 13P
GAIN2 ZFLS AUDIOLS ALSRSGND AUDIORS ZFC AUDIOC ACLFEGND AUDIOLFE GND EXPOO ZFLFE ZFRS
CN005 28P
VIDEOV VVGND VIDEOY VYCGND VIDEOC VS MAMUTE VMUTE AMUTE ZFLT AUDIOLT ALTRTGND AUDIORT GND SPDIF SLINK GAIN1 DISC/EXT ZFRT ZFL AUDIOL ALRGND AUDIOR GND A1IN A1OUT ZFR A+9V
POWER BLOCK
(SRV902UC) :US, CND
(HS-030SF) :EXCEPT US, CND
CN202 7P
+3.3V 7
+3.3V 6
+5V 5
GND 4
GND 3
M+12V 2
M+12V 1
PM-100
CN001 7P
7 +3.3V
6 +3.3V
5 +5V
4 GND
3 GND
2 M+12V
1 M+12V
CN101 2P
ACIN N 1
ACIN L 2
MB-85 BOARD
(2/2)
05
CN303 6P
SW-GND -12V GND +5V EVER5V PCONT
6 5 4 3 2 1
FR-74
FR-146 BOARD CN001
:S330
FR-150 BOARD CN001
:S530D/S550D
(SEE PAGE 4-3)

FRAME (2/3)

FRAME (3) SCHEMATIC DIAGRAM
– DVP-S705D –


1
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11
12
13
14
15
16
17
A
B
C
D
E
F
G
H
I
J
K
L
HP-109 BOARD
CN701 3P
HP_L 1
HP_GND 2
HP_R 3
AH-112
CN301 3P
1 HPL
2 GND
3 HPR
T901
RCODE
TRANS
CN401 4P
1 AC_10V
2 N.C.
3 GND
4 AC_10V
RY-12 BOARD
CN201 3P
AOUT N 3
ACOUT L 1
CN202 2P
+12V 1
GND 2
AR-107
CN107 2P
2 ACOUT L
1 ACOUT N
CN101 2P
ACOUT N 1
ACOUT L 3
RP-117
CN102 2P
ACOUT N 1
ACOUT L 2
POWER BLOCK
(HS-030SH)
CN201 8P
GND 8
EVER5V 7
-12V 6
GND 5
+12V 4
GND 3
+5V 2
+3.3V 1
AP-124
CN404 8P
8 GND
7 EVER5V
6 -12V
5 GND
4 +12V
3 GND
2 +5V
1 +3.3V
CN202 7P
+3.3V 7
+3.3V 6
+5V 5
GND 4
GND 3
M+12V 2
M+12V 1
PM-100
CN001 7P
7 +3.3V
6 +3.3V
5 +5V
4 GND
3 GND
2 M+12V
1 M+12V
CN101 2P
ACIN N 1
ACIN L 2
CN203 6P
SW-GND 6
-12V 5
GND 4
+5V 3
EVER5V 2
PCONT 1
05
FR-74
FR-148 BOARD CN001
(SEE PAGE 4-3)
SW RR FR
C RL FL
J303
5.1CH-OUT
R2 R1
L2 L1
J304
AUDIO OUT
R-Y B-Y Y
J302
COMPONENT OUT
S2
S1
J306
S-OUT
V2
V1
J305
V-OUT
J301
COAX
J303
OPT
B404 3P
R 1
GND 2
L 3
B403 3P
RT 1
GND 2
LT 3
BB-51
B401 6P
1 R
2 GND
3 L
4 RT
5 GND
6 LT
B406 3P
W 1
GND 2
C 3
B405 3P
RS 1
GND 2
LS 3
BB-52
B402 6P
1 W
2 GND
3 C
4 RS
5 GND
6 LS
AU-210 BOARD
CN405 7P
RGB/VBGND 1
VIDEOB/R-Y 2
VGGND 3
VIDEOG/Y 4
VRGND 5
VIDEOR/B-Y 6
EURO/V/+5V 7
CN403 13P
GAIN2 13
ZFLS 12
AUDIOLS 11
ALSRSGND 10
AUDIORS 9
ZFC 8
AUDIOC 7
ACLFEGND 6
AUDIOLFE 5
GND 4
EXPDO 3
ZFLFE 2
ZFRS 1
CN402 28P
VIDEOV 28
VVGND 27
VIDEOY 26
VYCGND 25
VIDEOC 24
VS 23
MAMUTE 22
VMUTE 21
AMUTE 20
ZFLT 19
AUDIOLT 18
ALTRTGND 17
AUDIORT 16
GND 15
SPDIF 14
SLINK 13
GAIN1 12
DISC/EXT 11
ZFRT 10
ZFL 9
AUDIOL 8
ALRGND 7
AUDIOR 6
GND 5
A1IN 4
A1OUT 3
ZFR 2
A+9V 1
FFC
FMA-9
FFC
FMA-8
FFC
FMA-7
CN004 7P
CN007 13P
CN005 28P
MB-82 BOARD(2/2)

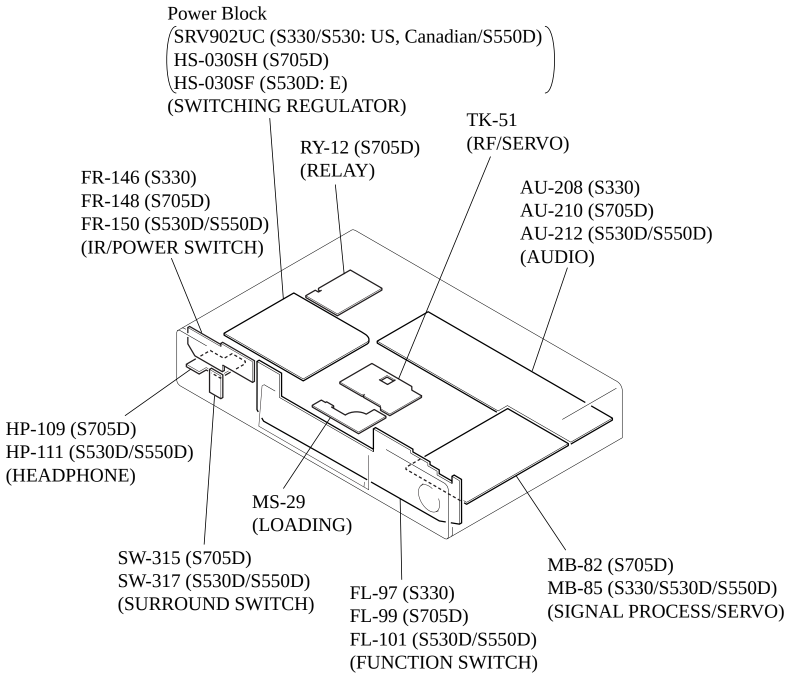
4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

TK-51 (RF/SERVO) PRINTED WIRING BOARD

– Ref. No.: TK-51 board; 2,000 series –

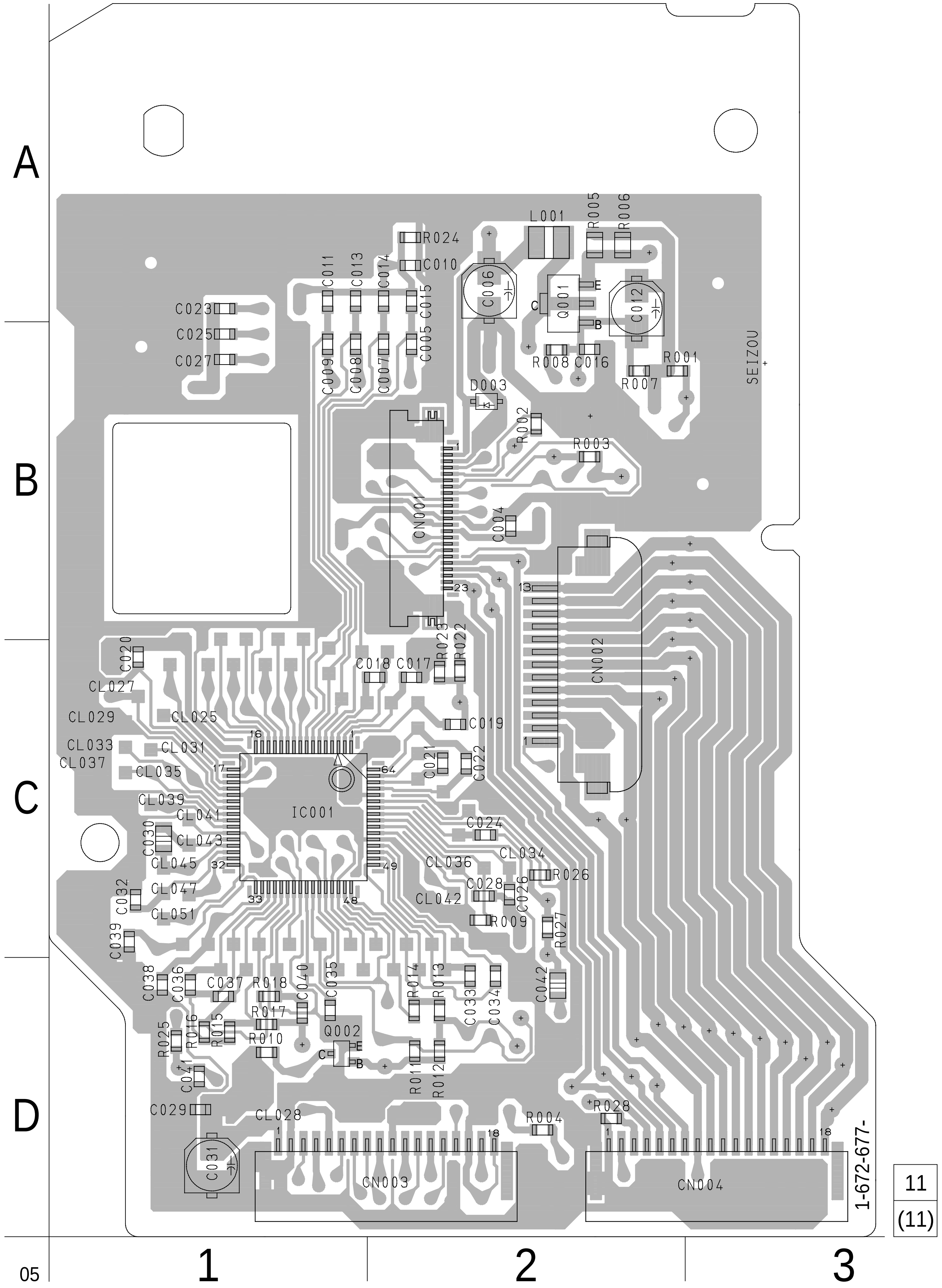
TK-51 BOARD (SIDE A)

CN001	B-2
CN002	C-2
CN003	D-2
CN004	D-3
D003	B-2
IC001	C-1
Q001	B-2
Q002	D-1

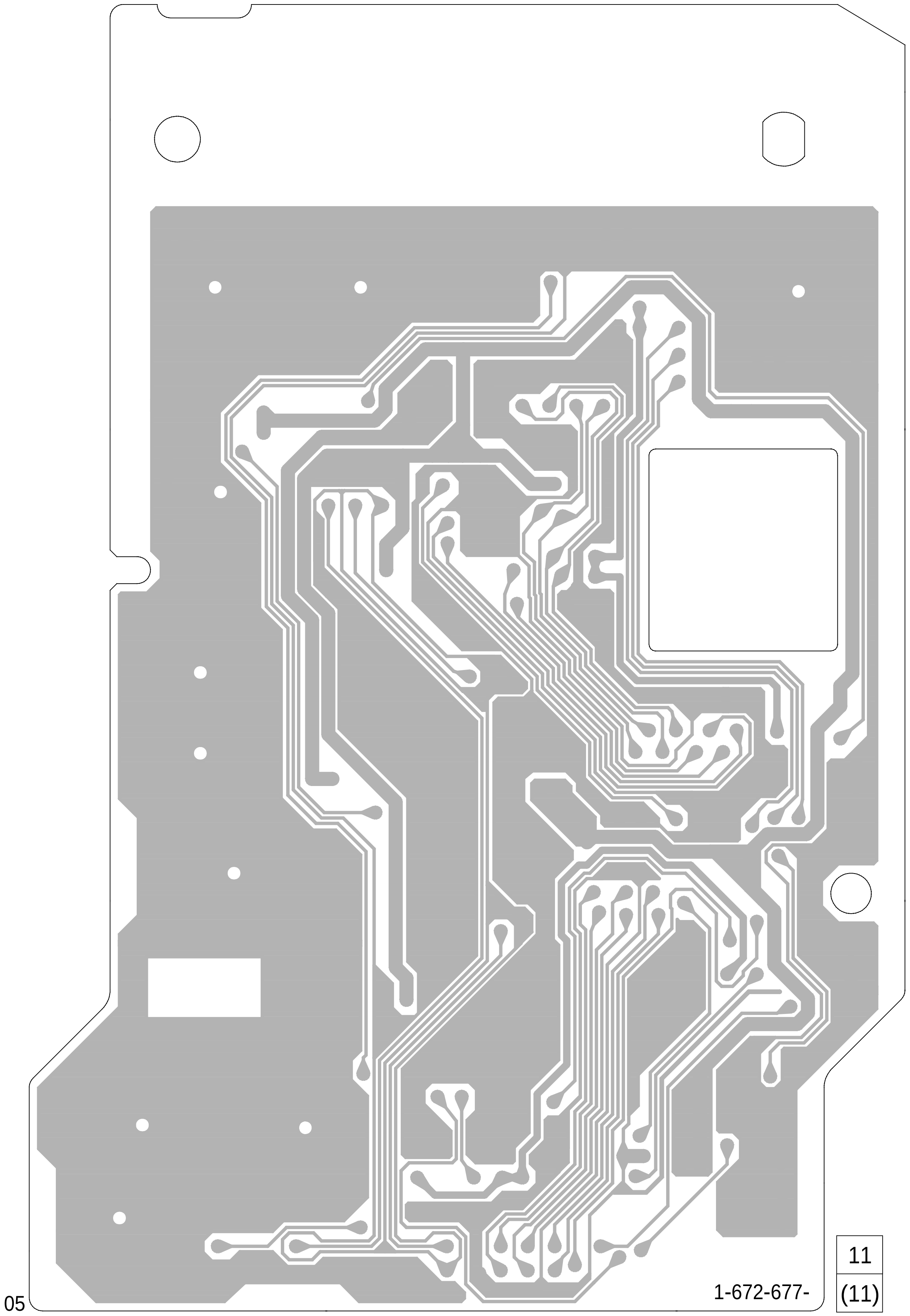

Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)
TK-51
(RF/SERVO)
RY-12 (S705D)
(RELAY)
FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)
AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)
HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)
MS-29
(LOADING)
SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)
FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)
MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

There are few cases that the part isn't mounted in this model is printed on this diagram.

TK-51 BOARD(SIDE A)

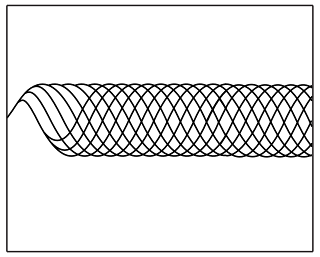

A
B
C
D
1
2
3
L001
R005
R006
R024
C010
C011
C013
C014
C015
C005
C006
Q001
C012
E
C
B
C023
C025
C027
C009
C008
C007
R008
C016
R001
R007
D003
SEIZOU
R002
R003
CN001
C004
23
13
CN002
C020
CL027
C018
C017
R023
R022
CL029
CL025
C019
CL033
CL031
CL037
CL035
16
17
1
64
C021
C022
CL039
IC001
CL041
C024
C030
CL043
CL034
CL045
32
49
CL036
R026
CL047
C032
33
48
C028
C026
CL042
CL051
R009
R027
C039
C038
C036
C037
R018
C040
C035
R014
R013
C033
C034
C042
R017
R025
R016
R015
R010
Q002
C041
R011
R012
C029
CL028
R004
R028
1
18
C031
CN003
CN004
1-672-677-
11
(11)
05

TK-51 BOARD(SIDE B)



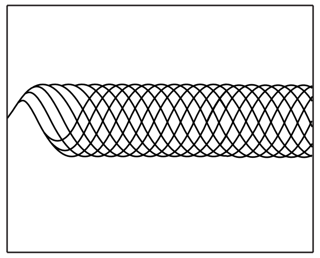
• Waveforms

❶ IC001 ① (DVD play)
200 mV/DIV 100 ns/DIV



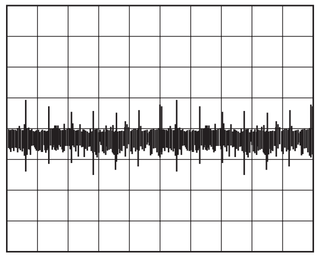
536 mVp-p

❷ IC001 ① (CD play)
500 mV/DIV 500 ns/DIV



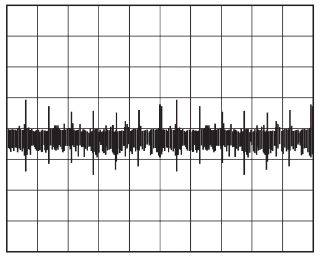
880 mVp-p

❸ IC001 ㉙ (DVD play)
200 mV/DIV 500 ms/DIV



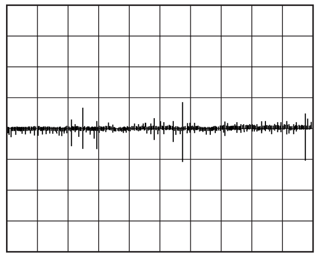
592 mVp-p

❹ IC001 ㉙ (CD play)
200 mV/DIV 20 ms/DIV



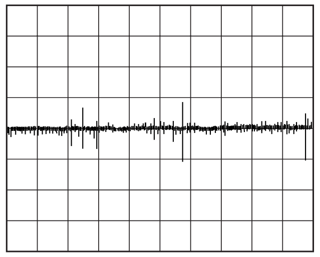
448 mVp-p

❺ IC001 ㊴ (DVD play)
500 mV/DIV 50 ms/DIV



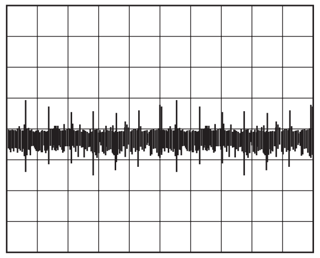
1.3 Vp-p

❻ IC001 ㊴ (CD play)
500 mV/DIV 200 ms/DIV



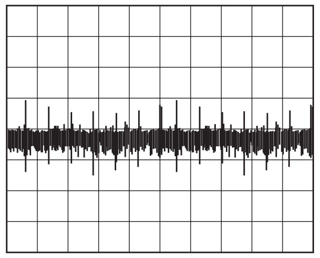
1.7 Vp-p

❼ IC001 ㊵ (DVD play)
100 mV/DIV 50 ms/DIV



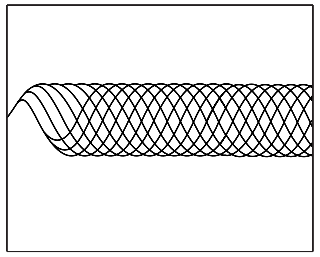
180 mVp-p

❽ IC001 ㊵ (CD play)
500 mV/DIV 50 ms/DIV



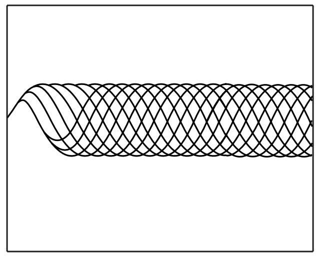
860 mVp-p

❾ IC001 (54) (DVD play)
500 mV/DIV 100 ns/DIV



1.5 Vp-p

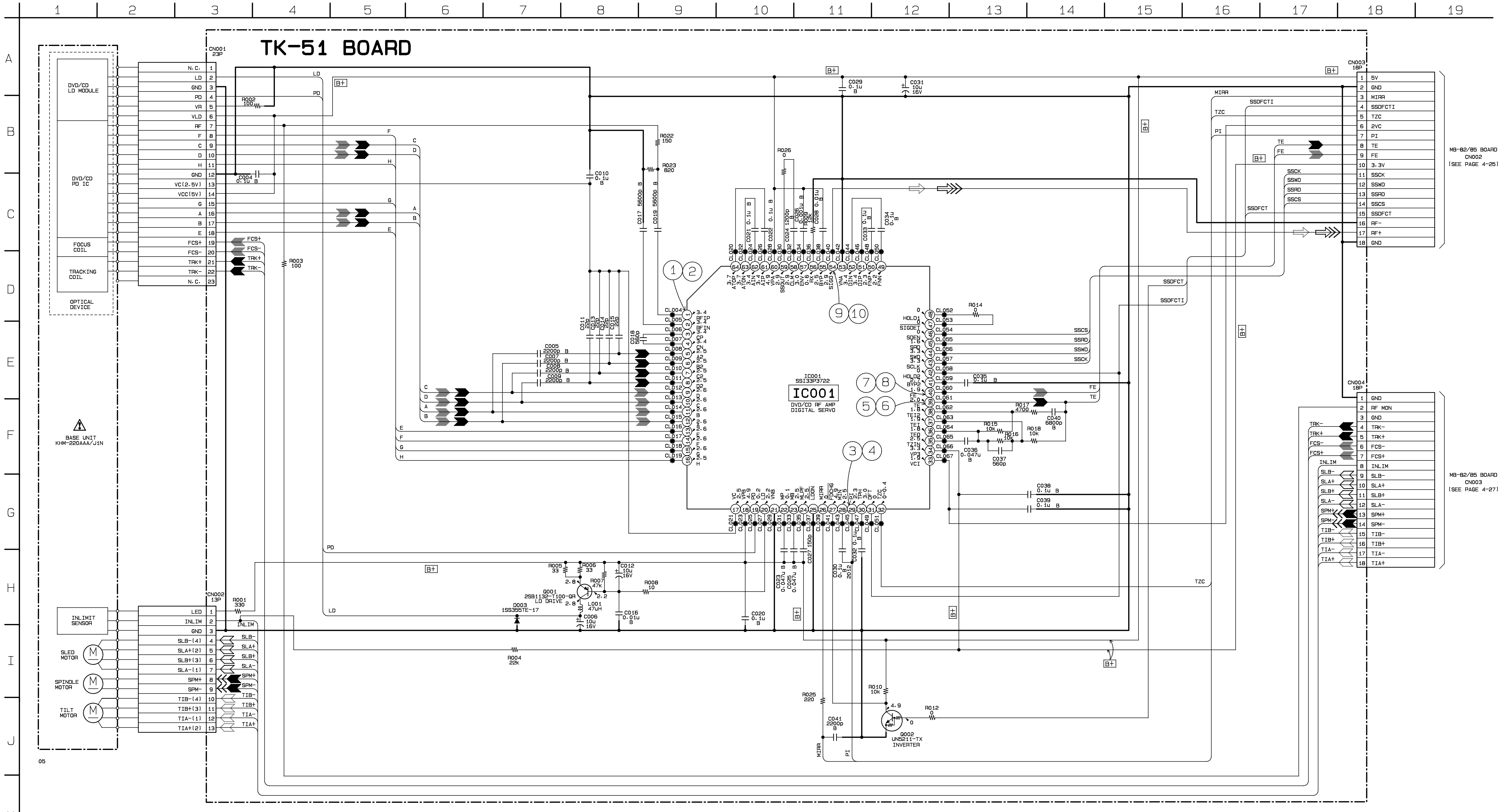
❿ IC001 (54) (CD play)
500 mV/DIV 500 ns/DIV



1.5 Vp-p

TK-51 (RF/SERVO) SCHEMATIC DIAGRAM • See page 4-9 for printed wiring board and page 4-12 for waveforms.

– Ref. No.: TK-51 board; 2,000 series –


TK-51 BOARD
CN001 23P
CN002 13P
CN003 18P
CN004 18P
DVD/CD LD MODULE
DVD/CD PD IC
FOCUS COIL
TRACKING COIL
OPTICAL DEVICE
BASE UNIT KHM-220AAA/JIN
INLIMIT SENSOR
SLED MOTOR
SPINDLE MOTOR
TILT MOTOR
IC001 SSI33P3722
IC001
DVD/CD RF AMP DIGITAL SERVO
Q001 2SB1132-T100-QR LD DRIVE
D003 1SS355TE-17
Q002 UN5211-TX INVERTER
MB-82/85 BOARD CN002 (SEE PAGE 4-25)
MB-82/85 BOARD CN003 (SEE PAGE 4-27)
05

NO MARK:DVD/CD PLAY

• SIGNAL PATH

SPINDLE SERVO(SPEED AND PHASE)	⇛
TRACKING SERVO DVD/CD CDV	➤
SLED SERVO DVD/CD	▷
FOCUS SERVO	➤
SKEW SERVO DVD/CD	▷

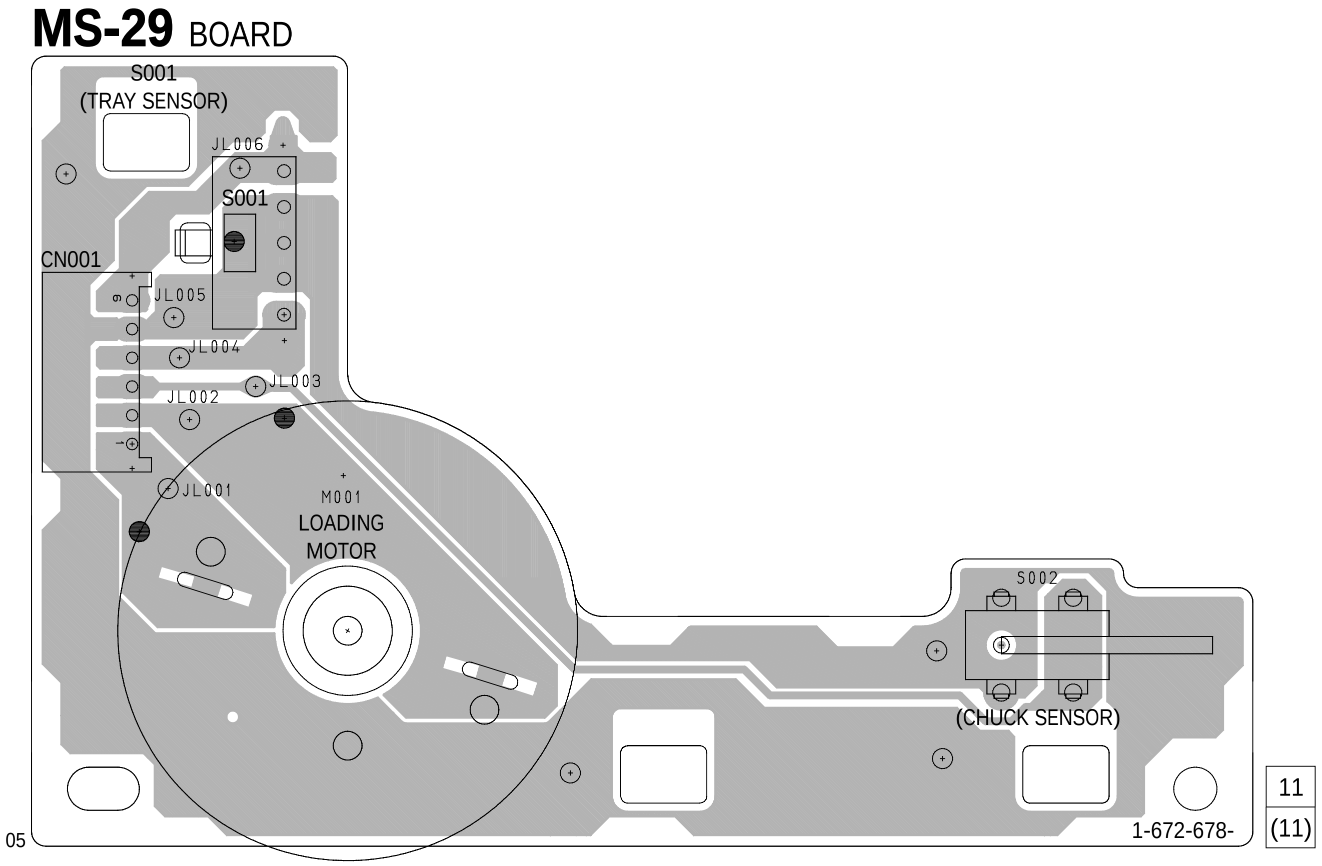
	VIDEO SIGNAL	AUDIO SIGNAL
	Y/CHROMA	
PB	⇛	⇨

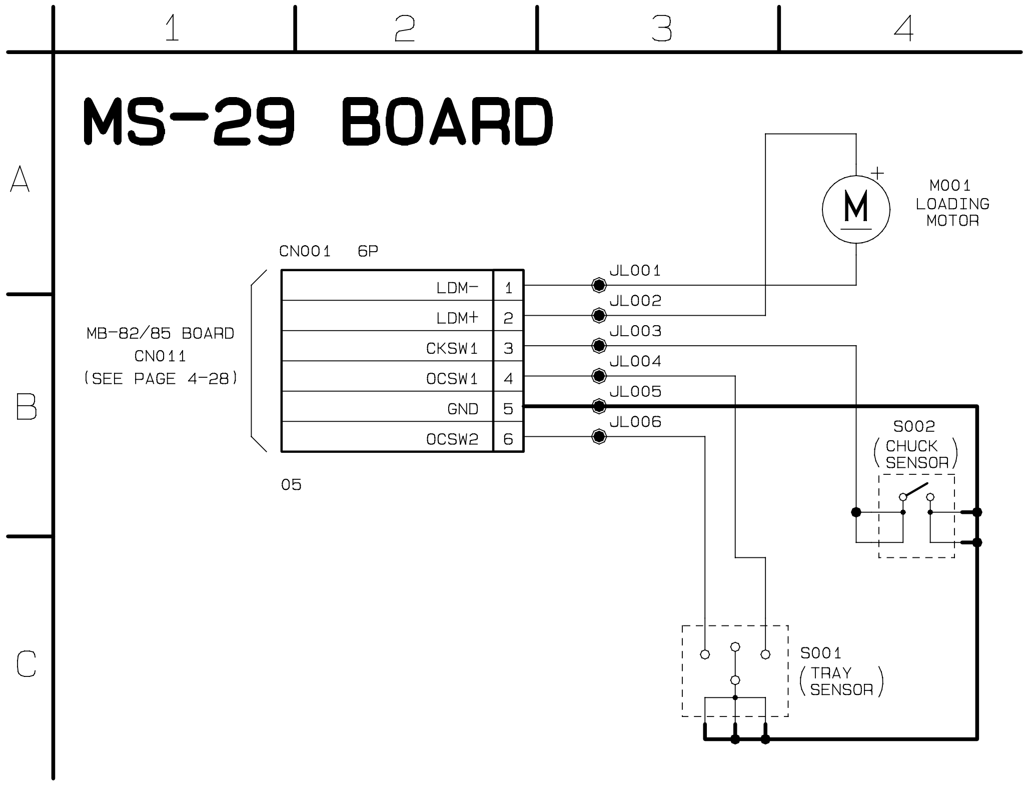
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

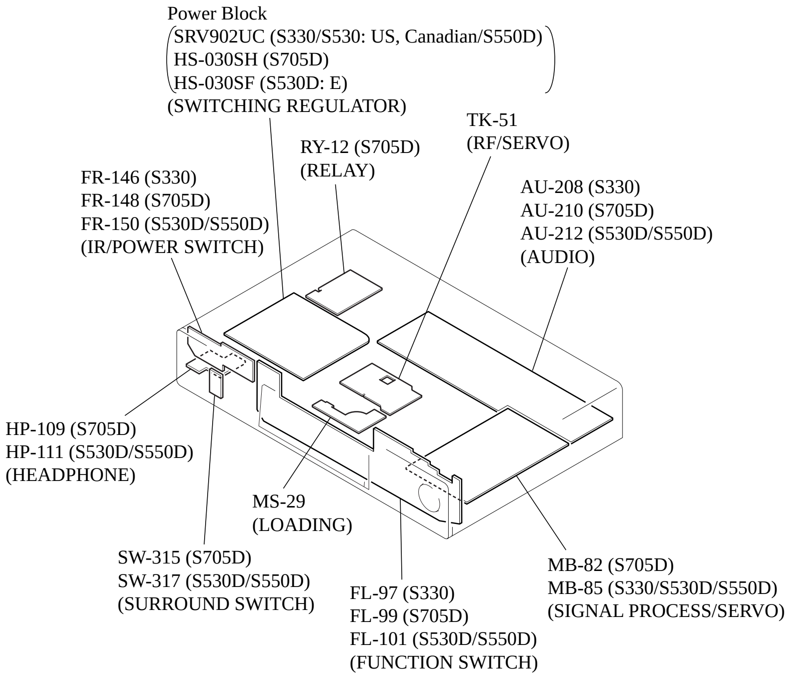
MS-29 (LOADING) PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM

– Ref. No.: MS-29 board; 3,000 series –

There are few cases that the part isn't mounted in this model is printed on this diagram.


MS-29 BOARD
S001
(TRAY SENSOR)
JL006
S001
CN001
JL005
JL004
JL003
JL002
JL001
M001
LOADING
MOTOR
S002
(CHUCK SENSOR)
05
1-672-678-
11
(11)


1
2
3
4
A
B
C
MS-29 BOARD
M001
LOADING
MOTOR
CN001 6P
MB-82/85 BOARD
CN011
(SEE PAGE 4-28)
LDM- 1
LDM+ 2
CKSW1 3
OCSW1 4
GND 5
OCSW2 6
JL001
JL002
JL003
JL004
JL005
JL006
S002
(CHUCK SENSOR)
S001
(TRAY SENSOR)
05


Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)
TK-51
(RF/SERVO)
RY-12 (S705D)
(RELAY)
FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)
AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)
HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)
MS-29
(LOADING)
SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)
FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)
MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

MB-82/85 (SIGNAL PROCESS) PRINTED WIRING BOARD

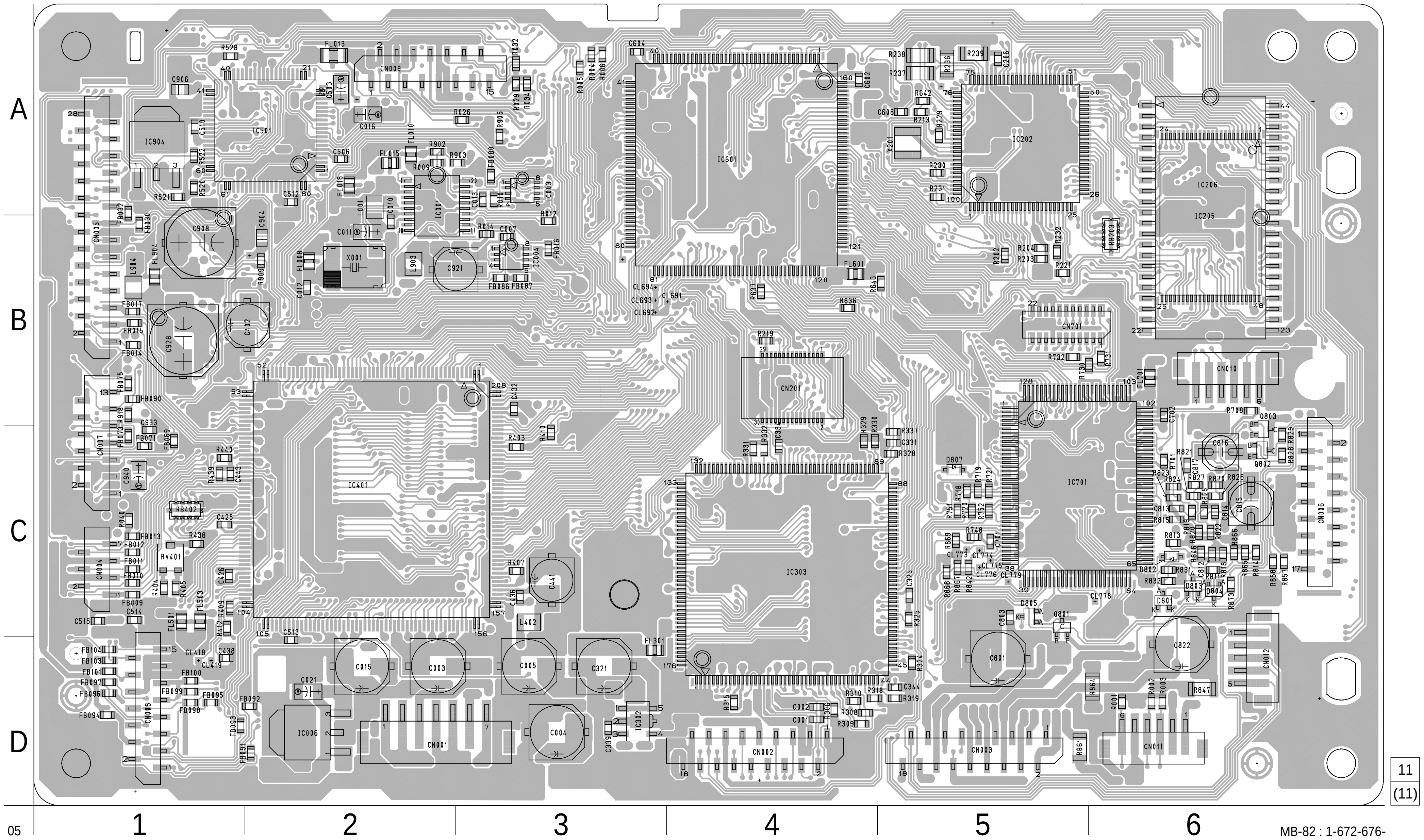
– Ref. No.: MB-82/85 board; 1,000 series –

There are few cases that the part isn't mounted in this model is printed on this diagram.

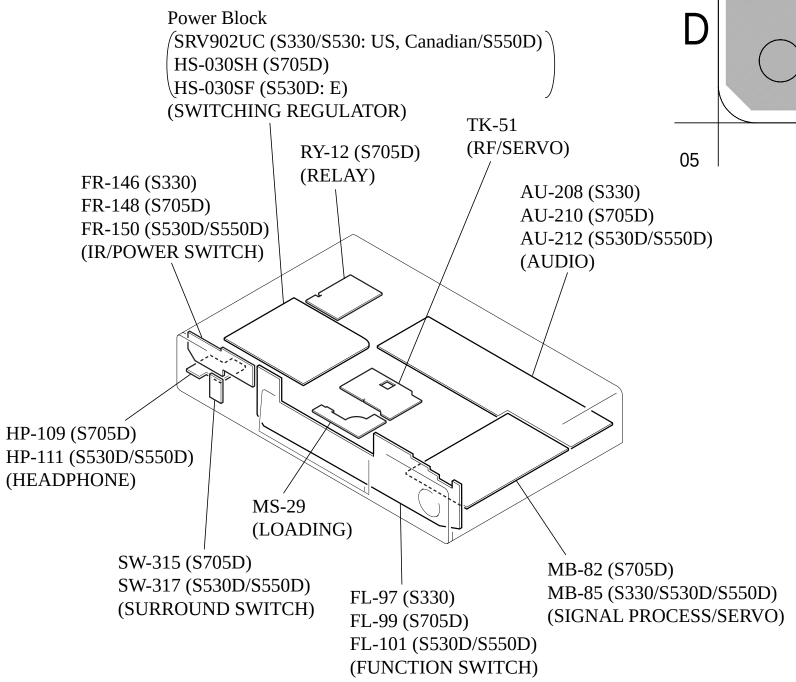
MB-82/85 BOARD (SIDE A)

CN001	D-2
CN002	D-4
CN003	D-5
CN004	C-1
CN005	B-1
CN006	C-7
CN007	C-1
CN010	B-6
CN011	D-6
CN012	D-6
D801	C-6
D802	C-6
D803	C-6
D804	C-6
D805	C-5
D807	C-5
IC001	A-2
IC003	A-3
IC004	B-3
IC202	A-5
IC205	A-6
IC302	D-3
IC303	C-4
IC401	C-2
IC501	A-2
IC601	A-4
IC701	C-5
IC904	A-1
Q801	C-5
Q802	C-6
Q803	C-6

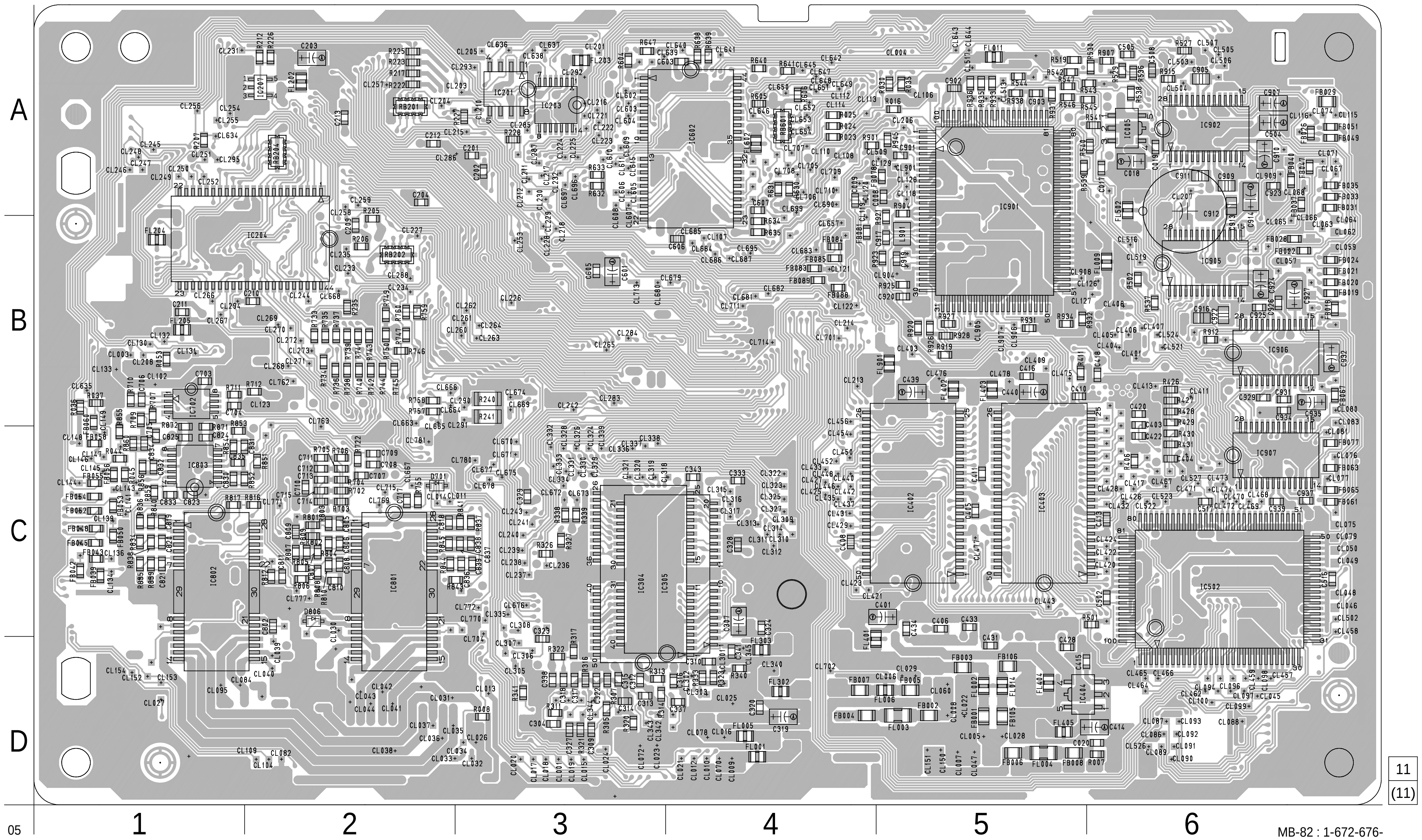
MB-82/85 BOARD(SIDE A)


A
B
C
D
1
2
3
4
5
6
05
11
(11)
IC401
IC303
IC601
IC202
IC206
IC205
IC701
IC501
IC904
IC001
CN001
CN002
CN003
CN004
CN005
CN006
CN007
CN009
CN010
CN011
CN012
CN201
CN701

MB-82 : 1-672-676-
MB-85 : 1-672-751-


Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)
TK-51
(RF/SERVO)
RY-12 (S705D)
(RELAY)
FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)
AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)
HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)
MS-29
(LOADING)
SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)
FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)
MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

MB-82/85 BOARD(SIDE B)


A
B
C
D
1
2
3
4
5
6
05
11
(11)
IC005
IC201
IC203
IC204
IC207
IC304
IC305
IC402
IC403
IC404
IC502
IC602
IC702
IC801
IC802
IC803
IC901
IC902
IC905
IC906
IC907
D701
D806

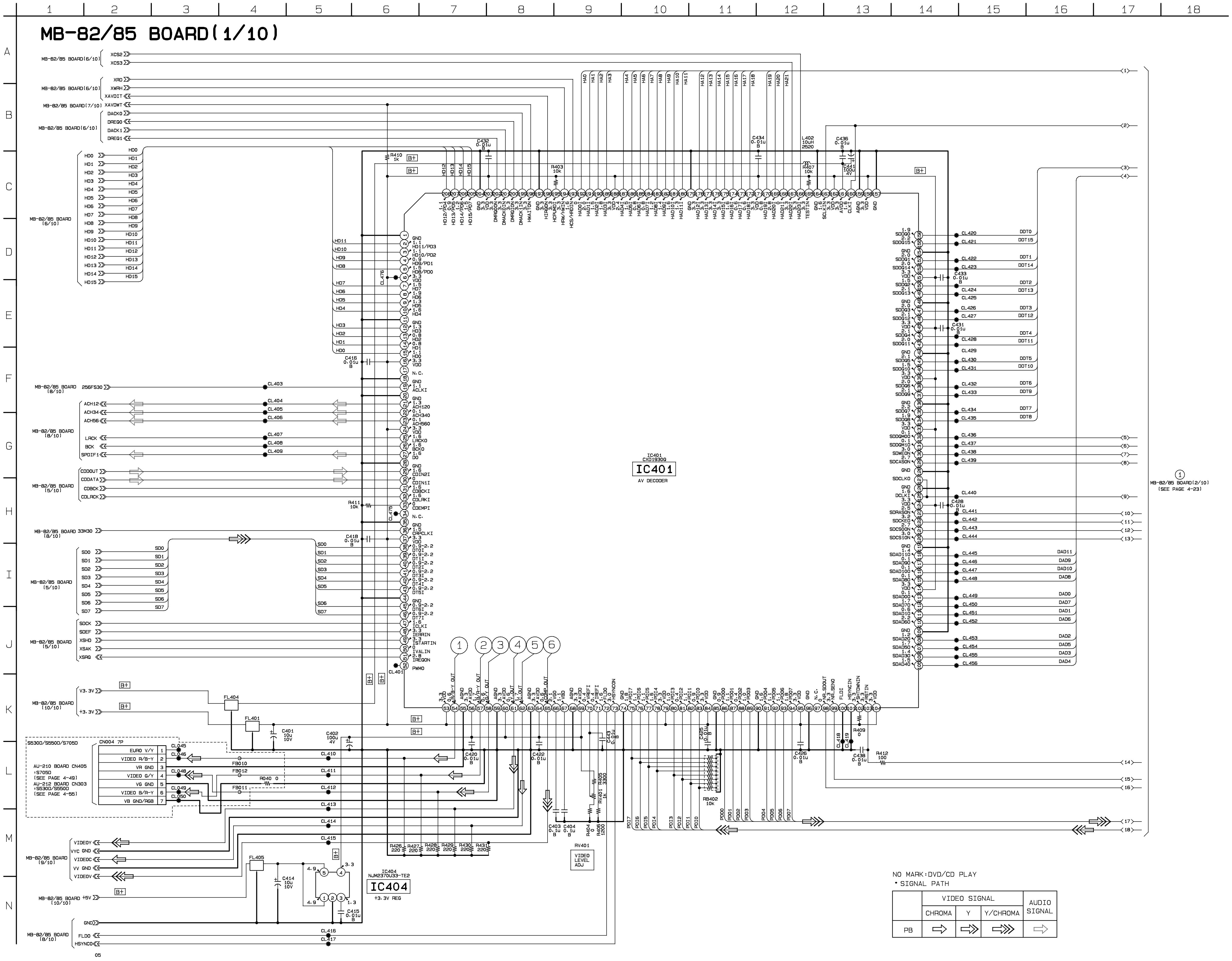
MB-82 : 1-672-676-
MB-85 : 1-672-751-

MB-82/85 BOARD (SIDE B)

D701	C-2
D806	C-2
IC005	A-6
IC201	A-3
IC203	A-3
IC204	B-2
IC207	A-2
IC304	C-3
IC402	C-5
IC403	C-5
IC404	D-6
IC502	C-6
IC602	A-4
IC702	B-1
IC801	C-2
IC802	C-1
IC803	C-1
IC902	A-6
IC905	B-6
IC906	B-6
IC907	C-6

MB-82/85 (AV DECODER) SCHEMATIC DIAGRAM • See page 4-17 for printed wiring board.

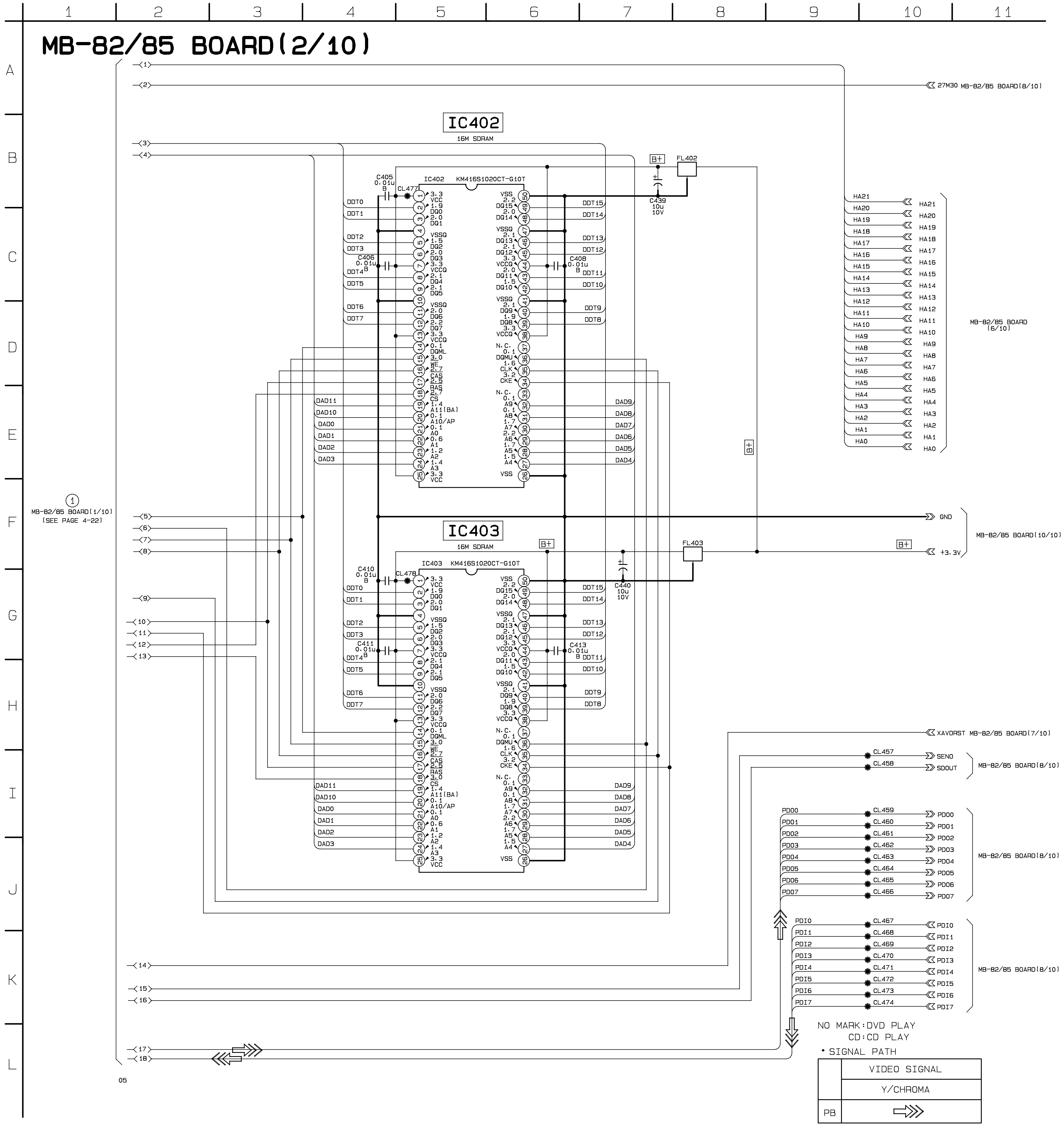
– Ref. No.: MB-82/85 board; 1,000 series –


MB-82/85 BOARD(1/10)
IC401
CXD1930Q
AV DECODER
IC404
NJM2370U33-TE2
+3.3V REG
CN004 7P
S530D/S550D/S705D
AU-210 BOARD CN405 (S705D) (SEE PAGE 4-49)
AU-212 BOARD CN303 (S530D/S550D) (SEE PAGE 4-55)
MB-82/85 BOARD(2/10) (SEE PAGE 4-23)
RV401 VIDEO LEVEL ADJ
NO MARK:DVD/CD PLAY
• SIGNAL PATH
VIDEO SIGNAL
AUDIO SIGNAL
CHROMA
Y
Y/CHROMA
PB

AV DECODER
MB-82/85 (1/10)

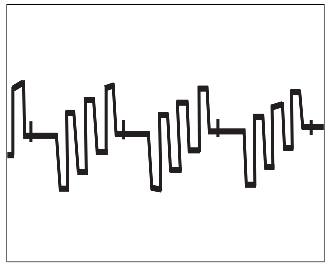
MB-82/85 (SDRAM) SCHEMATIC DIAGRAM • See page 4-17 for printed wiring board.

– Ref. No.: MB-82/85 board; 1,000 series –


MB-82/85 BOARD(2/10)
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
IC402
16M SDRAM
IC402 KM416S1020CT-G10T
IC403
16M SDRAM
IC403 KM416S1020CT-G10T
C405 0.01u B
C406 0.01u B
C408 0.01u B
C410 0.01u B
C411 0.01u B
C413 0.01u B
C439 10u 10V
C440 10u 10V
CL477
CL478
FL402
FL403
B+
VCC
VSS
VSSQ
VCCQ
DQML
DQMU
WE
CAS
RAS
CS
A11(BA)
A10/AP
CLK
CKE
N.C.
DDT0
DDT1
DDT2
DDT3
DDT4
DDT5
DDT6
DDT7
DDT8
DDT9
DDT10
DDT11
DDT12
DDT13
DDT14
DDT15
DAD0
DAD1
DAD2
DAD3
DAD4
DAD5
DAD6
DAD7
DAD8
DAD9
DAD10
DAD11
27M30 MB-82/85 BOARD(8/10)
HA0
HA1
HA2
HA3
HA4
HA5
HA6
HA7
HA8
HA9
HA10
HA11
HA12
HA13
HA14
HA15
HA16
HA17
HA18
HA19
HA20
HA21
MB-82/85 BOARD (6/10)
①
MB-82/85 BOARD(1/10) (SEE PAGE 4-22)
GND
+3.3V
MB-82/85 BOARD(10/10)
XAVDRST MB-82/85 BOARD(7/10)
CL457
CL458
SENO
SDOUT
MB-82/85 BOARD(8/10)
PDO0
PDO1
PDO2
PDO3
PDO4
PDO5
PDO6
PDO7
CL459
CL460
CL461
CL462
CL463
CL464
CL465
CL466
MB-82/85 BOARD(8/10)
PDI0
PDI1
PDI2
PDI3
PDI4
PDI5
PDI6
PDI7
CL467
CL468
CL469
CL470
CL471
CL472
CL473
CL474
MB-82/85 BOARD(8/10)
NO MARK:DVD PLAY
CD:CD PLAY
• SIGNAL PATH
VIDEO SIGNAL
Y/CHROMA
PB
05

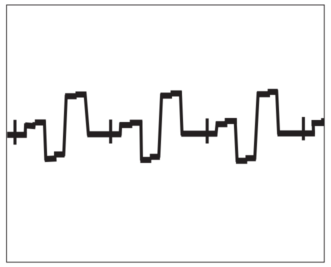
• Waveforms

❶ IC401 (54)



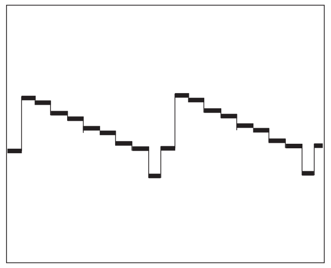
720 mVp-p (H)

❷ IC401 (57)



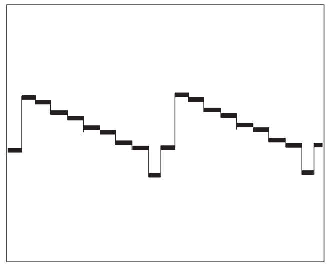
728 mVp-p (H)

❸ IC401 (58)



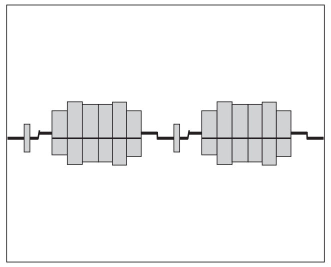
1.0 Vp-p (H)

❹ IC401 (61)



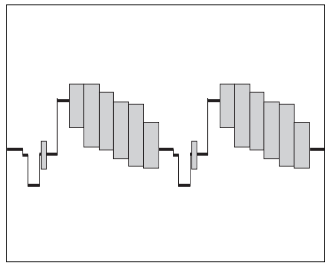
1.1 Vp-p (H)

❺ IC401 (62)



816 mVp-p (H)

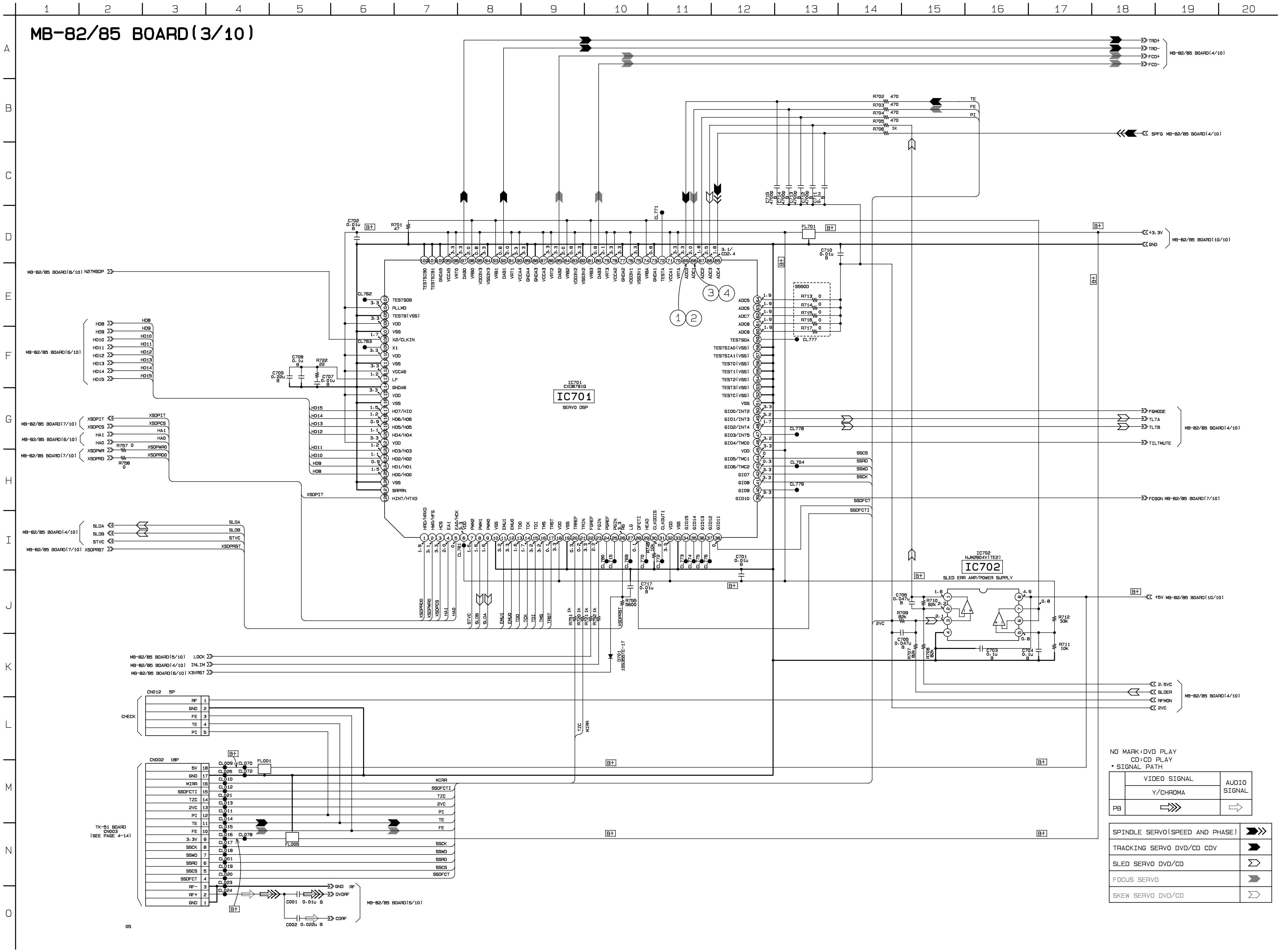
❻ IC401 (65)



1.2 Vp-p (H)

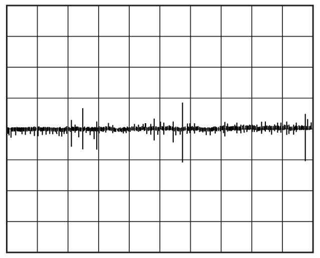
MB-82/85 (SERVO DSP) SCHEMATIC DIAGRAM • See page 4-17 for printed wiring board.

– Ref. No.: MB-82/85 board; 1,000 series –


MB-82/85 BOARD(3/10)
IC701 CXD8791Q SERVO DSP
IC702 NJM2904V(TE2) SLED ERR AMP/POWER SUPPLY
TRD+
TRD-
FCD+
FCD-
MB-82/85 BOARD(4/10)
SPFG MB-82/85 BOARD(4/10)
+3.3V
GND
MB-82/85 BOARD(10/10)
N27MSDP
MB-82/85 BOARD(6/10)
HD8–HD15
XSDPIT
XSDPCS
HA1
HA0
XSDPWR
XSDPRD
MB-82/85 BOARD(7/10)
FGMODE
TLTA
TLTB
TILTMUTE
FCSON MB-82/85 BOARD(7/10)
SLDA
SLDB
STVC
XSDPRST
LOCK
INLIM
X3VRST
MB-82/85 BOARD(5/10)
+5V MB-82/85 BOARD(10/10)
2.5VC
SLDER
RFMON
2VC
CN012 5P
CHECK
RF
GND
FE
TE
PI
CN002 18P
TK-51 BOARD CN003 (SEE PAGE 4-14)
GND RF
DVDRF
CDRF
C001 0.01u B
C002 0.022u B
NO MARK:DVD PLAY
CD:CD PLAY
• SIGNAL PATH
VIDEO SIGNAL
Y/CHROMA
AUDIO SIGNAL
PB
SPINDLE SERVO(SPEED AND PHASE)
TRACKING SERVO DVD/CD CDV
SLED SERVO DVD/CD
FOCUS SERVO
SKEW SERVO DVD/CD

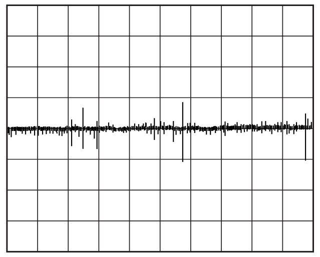
• Waveforms

① IC701 (69) (DVD play)
500 mV/DIV 50 ms/DIV



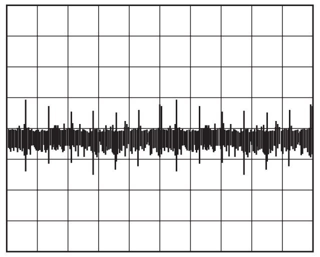
1.4 Vp-p

② IC701 (69) (CD play)
500 mV/DIV 200 mV/DIV



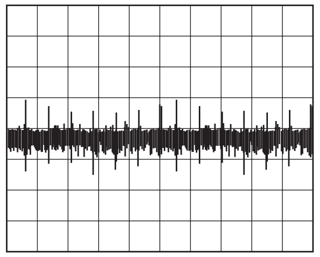
1.7 Vp-p

③ IC701 (68) (DVD play)
100 mV/DIV 5 ms/DIV



180 mVp-p

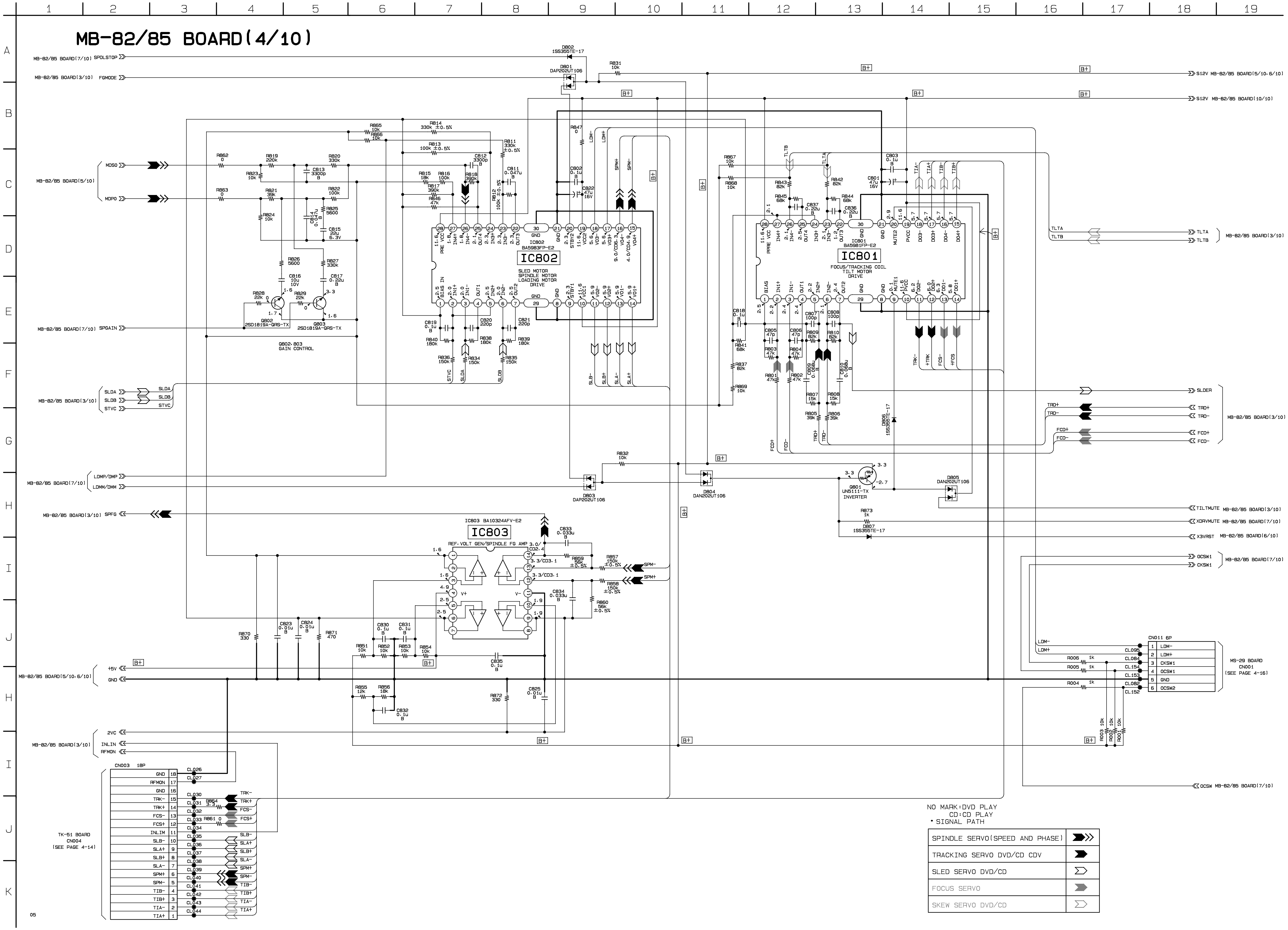
④ IC701 (68) (CD play)
500 mV/DIV 50 ms/DIV



860 mVp-p

MB-82/85 (DRIVE) SCHEMATIC DIAGRAM • See page 4-17 for printed wiring board.

– Ref. No.: MB-82/85 board; 1,000 series –

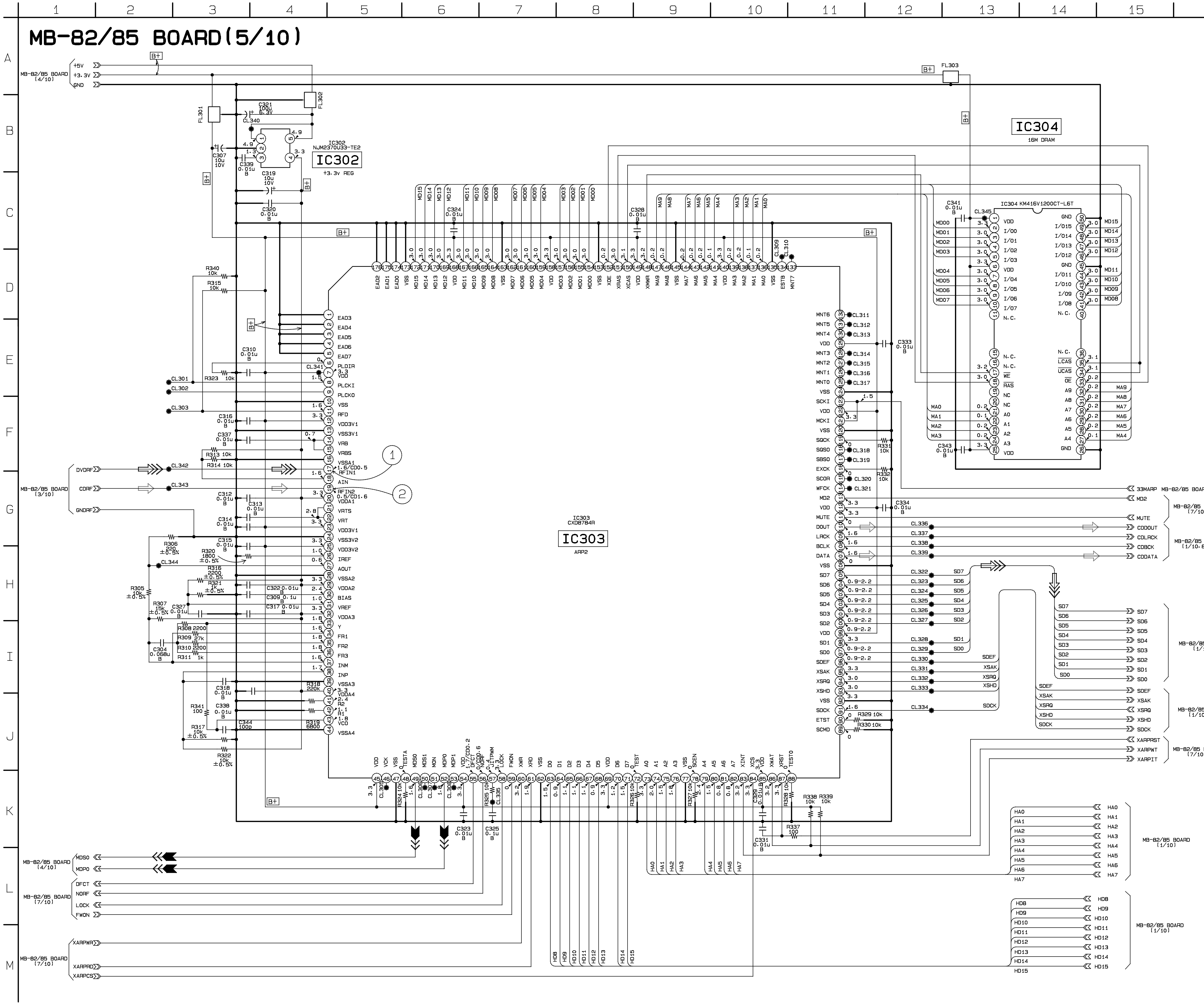

MB-82/85 BOARD(4/10)
IC802
BA5983FP-E2
SLED MOTOR SPINDLE MOTOR LOADING MOTOR DRIVE
IC801
BA5981FP-E2
FOCUS/TRACKING COIL TILT MOTOR DRIVE
IC803 BA10324AFV-E2
REF. VOLT GEN/SPINDLE FG AMP
Q802, 803 GAIN CONTROL
Q801 UN5111-TX INVERTER
D801 DAP202UT106
D802 1SS355TE-17
D803 DAP202UT106
D804 DAN202UT106
D805 DAN202UT106
D806 1SS355TE-17
D807 1SS355TE-17
MB-82/85 BOARD(7/10) SPDLSTOP
MB-82/85 BOARD(3/10) FGMODE
MB-82/85 BOARD(5/10) MDS0 MDP0
MB-82/85 BOARD(7/10) SPGAIN
MB-82/85 BOARD(3/10) SLDA SLDB STVC
MB-82/85 BOARD(7/10) LDMP/DMP LDMM/DMM
MB-82/85 BOARD(3/10) SPFG
MB-82/85 BOARD(5/10,6/10) +5V GND
MB-82/85 BOARD(3/10) 2VC INLIN RFMON
S12V MB-82/85 BOARD(5/10,6/10)
S12V MB-82/85 BOARD(10/10)
TLTA TLTB MB-82/85 BOARD(3/10)
SLDER
TRD+ TRD- FCD+ FCD- MB-82/85 BOARD(3/10)
TILTMUTE MB-82/85 BOARD(3/10)
XDRVMUTE MB-82/85 BOARD(7/10)
X3VRST MB-82/85 BOARD(6/10)
OCSW1 CKSW1 MB-82/85 BOARD(7/10)
OCSW MB-82/85 BOARD(7/10)
CN011 6P
MS-29 BOARD CN001 (SEE PAGE 4-16)
CN003 18P
TK-51 BOARD CN004 (SEE PAGE 4-14)
05

NO MARK: DVD PLAY
CD: CD PLAY
• SIGNAL PATH

SPINDLE SERVO(SPEED AND PHASE)	➤»»
TRACKING SERVO DVD/CD CDV	➤
SLED SERVO DVD/CD	▷
FOCUS SERVO	➤
SKEW SERVO DVD/CD	▷

MB-82/85 (ARP) SCHEMATIC DIAGRAM • See page 4-17 for printed wiring board.

– Ref. No.: MB-82/85 board; 1,000 series –


MB-82/85 BOARD(5/10)
IC302
NJM2370U33-TE2
+3.3V REG
IC303
CXD8784R
ARP2
IC304
16M DRAM
IC304 KM416V1200CT-L6T
FL301
FL302
FL303
B+
+5V
+3.3V
GND
MB-82/85 BOARD (4/10)
MB-82/85 BOARD (3/10)
DVDRF
CDRF
GNDRF
MB-82/85 BOARD (8/10)
33MARP
MB-82/85 BOARD (7/10)
MD2
MUTE
MB-82/85 BOARD (1/10, 8/10)
CDDOUT
CDLRCK
CDBCK
CDDATA
MB-82/85 BOARD (1/10)
SD7
SD6
SD5
SD4
SD3
SD2
SD1
SD0
SDEF
XSAK
XSRQ
XSHD
SDCK
XARPRST
XARPWT
XARPIT
HA0
HA1
HA2
HA3
HA4
HA5
HA6
HA7
HD8
HD9
HD10
HD11
HD12
HD13
HD14
HD15
MDS0
MDP0
DFCT
NORF
LOCK
FWON
XARPWR
XARPRD
XARPCS
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
A
B
C
D
E
F
G
H
I
J
K
L
M

NO MARK: DVD PLAY
CD: CD PLAY

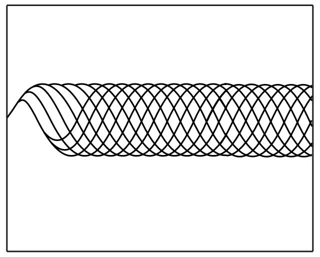
• SIGNAL PATH

	VIDEO SIGNAL	AUDIO SIGNAL
	Y/CHROMA	
PB	⇛	⇨

SPINDLE SERVO(SPEED AND PHASE) ➤➤

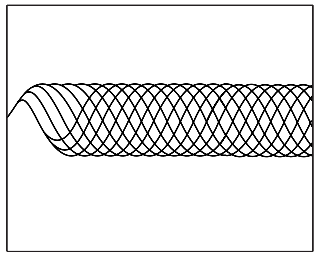
• **Waveforms**

❶ IC303 ⑰ (DVD play)
500 mV/DIV 100 ns/DIV



1.6 Vp-p

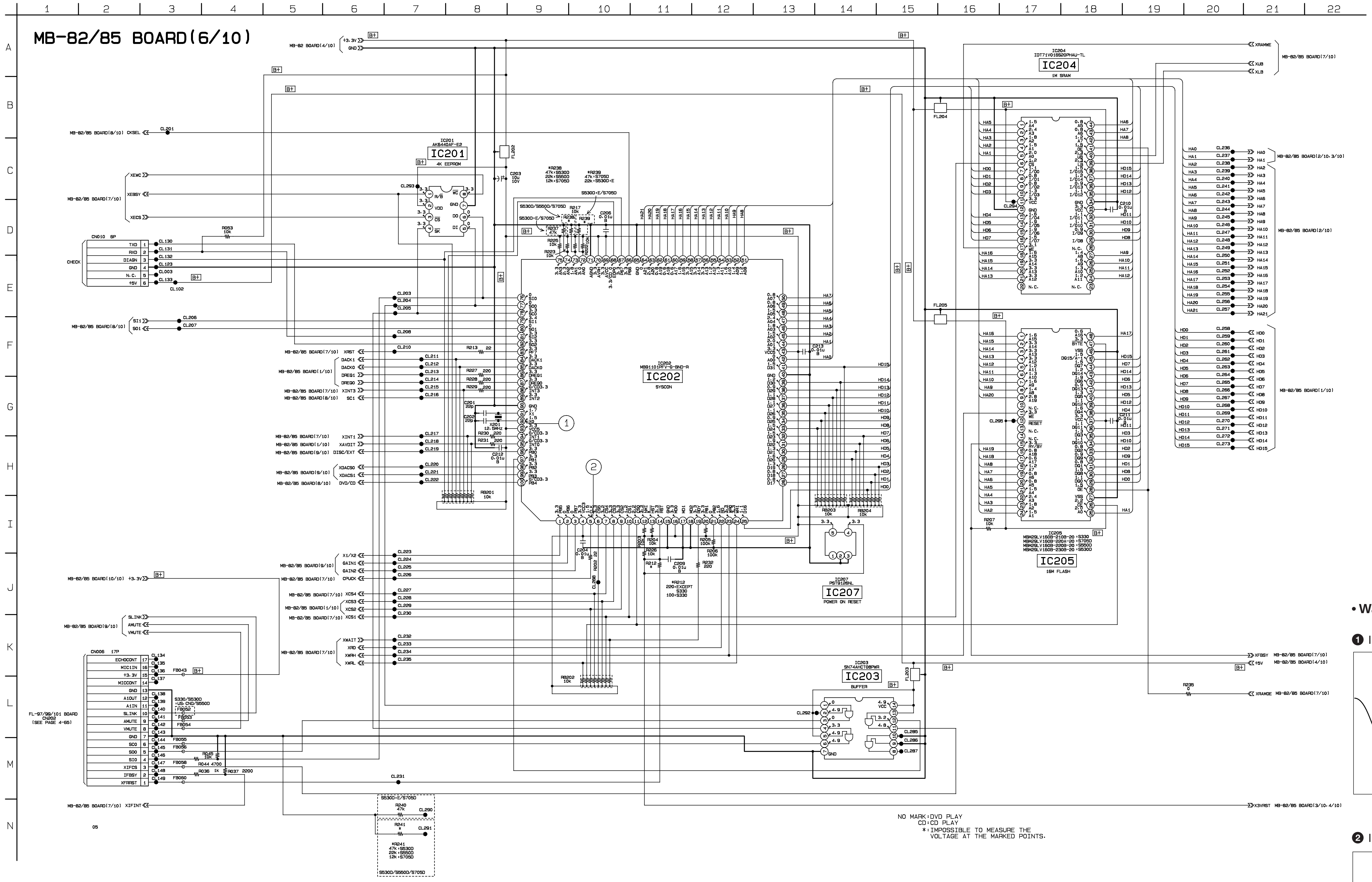
❷ IC303 ⑲ (CD play)
500 mV/DIV 200 ns/DIV



1.6 Vp-p

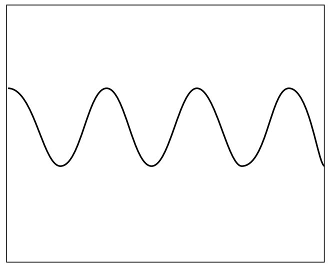
MB-82/85 (SYSTEM CONTROL) SCHEMATIC DIAGRAM • See page 4-17 for printed wiring board.

– Ref. No.: MB-82/85 board; 1,000 series –


MB-82/85 BOARD(6/10)
IC201 AK6440AF-E2 4K EEPROM
IC202 MB91101PFV-G-BND-R SYSCON
IC204 IDT71V016SA20PHAU-TL 1M SRAM
IC205 16M FLASH
IC207 PST9126NL POWER ON RESET
IC203 SN74AHCT08PWR BUFFER
NO MARK: DVD PLAY
CD: CD PLAY
*: IMPOSSIBLE TO MEASURE THE VOLTAGE AT THE MARKED POINTS.

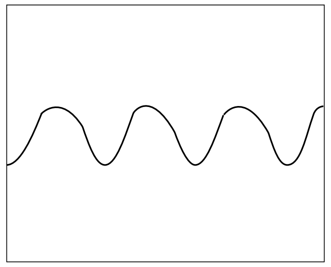
• Waveforms

❶ IC202 (92)



2.4 Vp-p (12.5 MHz)

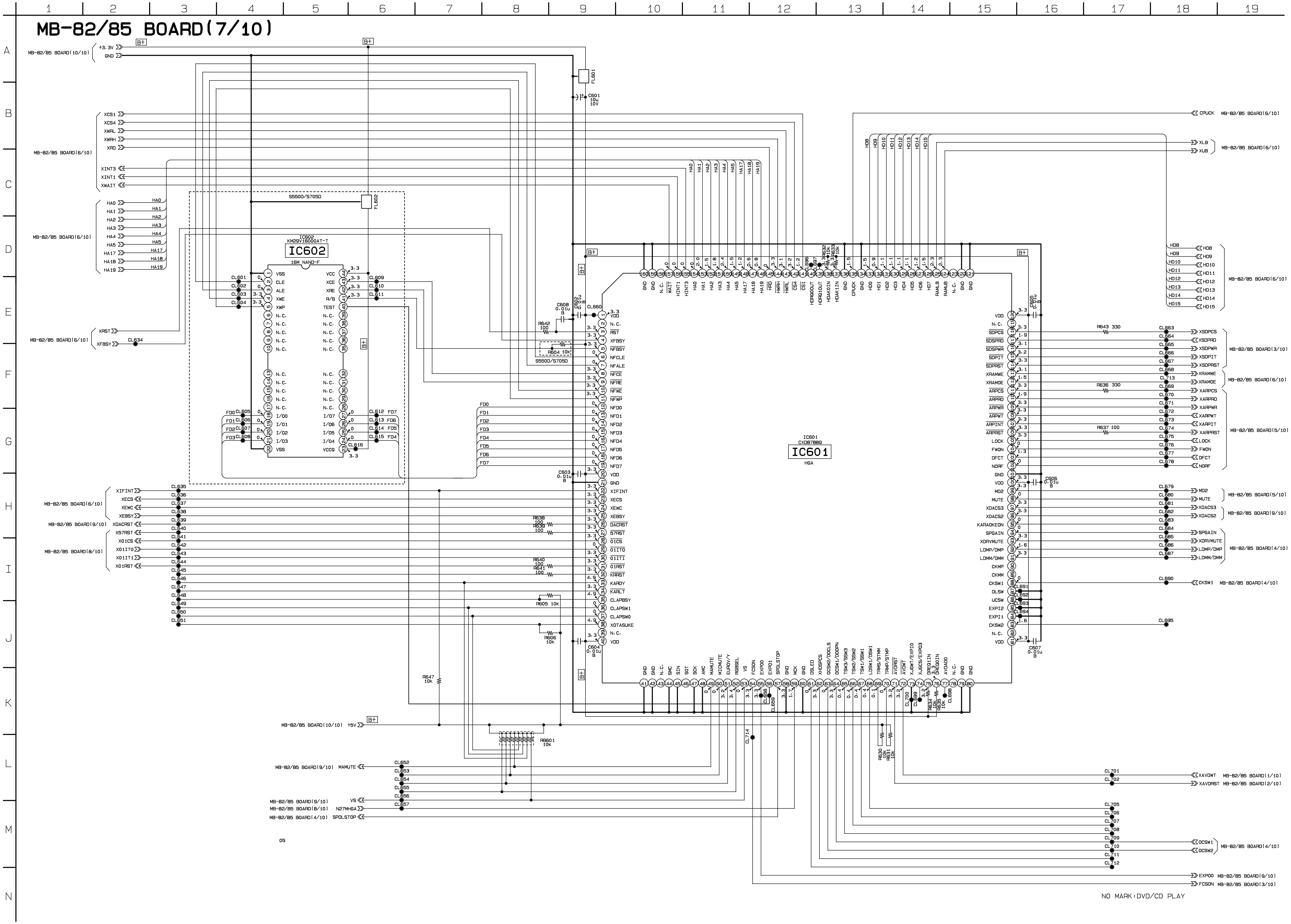
❷ IC202 ⑤



4 Vp-p (25.3 MHz)

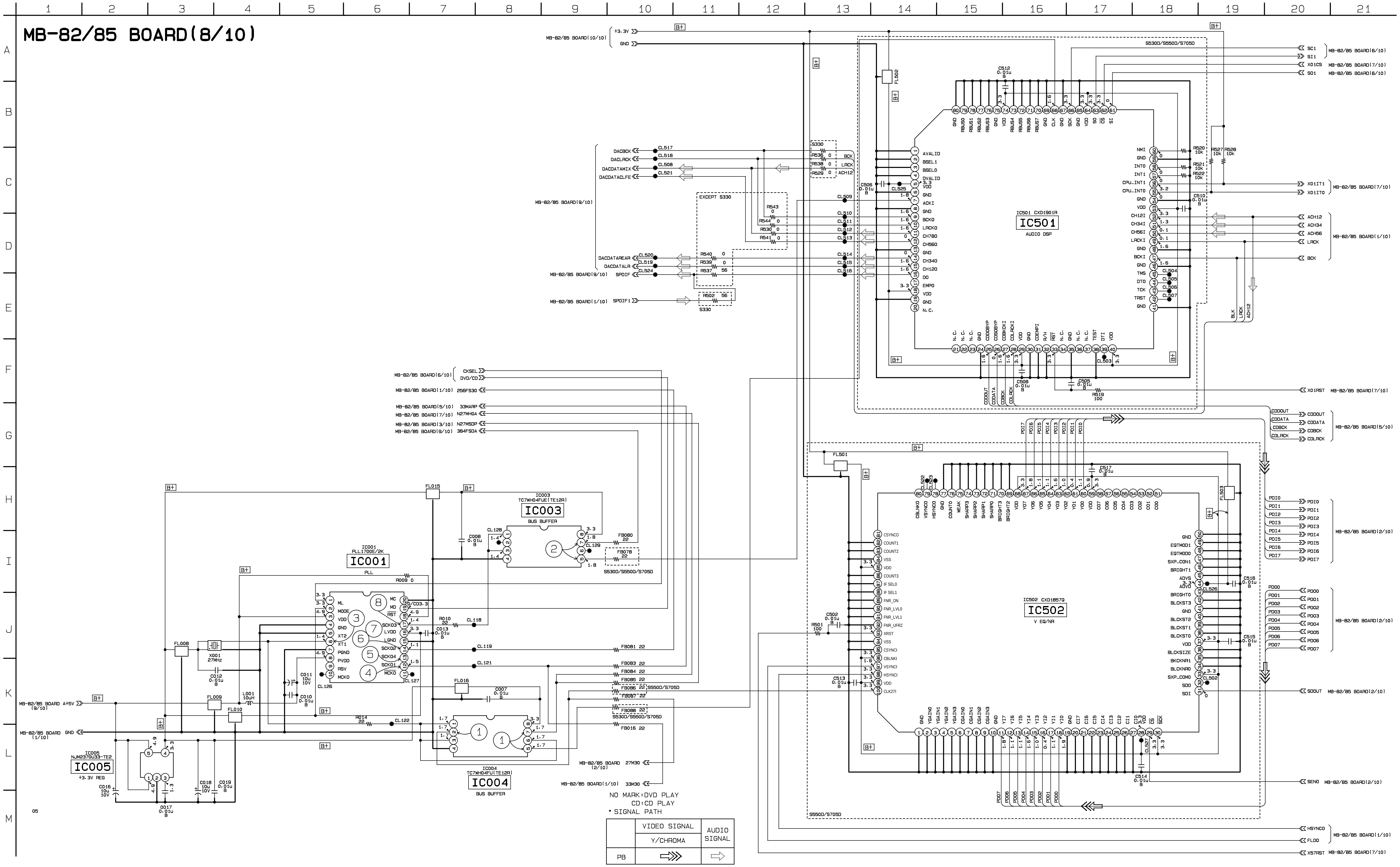
MB-82/85 (HGA) SCHEMATIC DIAGRAM • See page 4-17 for printed wiring board.

– Ref. No.: MB-82/85 board; 1,000 series –


MB-82/85 BOARD(7/10)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
A
B
C
D
E
F
G
H
I
J
K
L
M
N
MB-82/85 BOARD(10/10)
+3.3V
GND
B+
FL601
C601 10u 10V
MB-82/85 BOARD(6/10)
XCS1
XCS4
XWAL
XWAH
XRD
XINT3
XINT1
XWAIT
HA0
HA1
HA2
HA3
HA4
HA5
HA17
HA18
HA19
S550D/S705D
FL602
IC602
KM29V16000AT-T
16M NAND-F
VSS
CLE
ALE
XWE
XWP
N.C.
I/O0
I/O1
I/O2
I/O3
VCC
XCE
XRE
R/B
TEST
I/O7
I/O6
I/O5
I/O4
VCCQ
XRST
XFBSY
FD0
FD1
FD2
FD3
FD4
FD5
FD6
FD7
C608 0.01u B
C602 0.01u B
R642 100
R604 10k
IC601
CXD8788Q
HGA
VDD
RST
XFBSY
NFBSY
NFCLE
NFALE
NFCE
NFRE
NFWE
NFWP
NFD0
NFD1
NFD2
NFD3
NFD4
NFD5
NFD6
NFD7
GND
XIFINT
XECS
XEWC
XEBSY
DACRST
57RST
01CS
01IT0
01IT1
01RST
KARST
KARDY
KARLT
CLAPBSY
CLAPSW1
CLAPSW0
XOTASUKE
C603 0.01u B
C604 0.01u B
R638 100
R639 100
R640 100
R641 100
R605 10k
R606 10k
R647 10k
MB-82/85 BOARD(9/10)
MB-82/85 BOARD(8/10)
XIFINT
XECS
XEWC
XEBSY
XDACRST
X57RST
X01CS
X01IT0
X01IT1
X01RST
HD8
HD9
HD10
HD11
HD12
HD13
HD14
HD15
CPUCK
XLB
XUB
HDAK0IN
HDAK1IN
HDRQ0OUT
HDRQ1OUT
R632 10k
R633 10k
RAMLB
RAMUB
SDPCS
SDPRD
SDPWR
SDPIT
SDPRST
XRAMWE
XRAMOE
ARPCS
ARPRD
ARPWR
ARPWT
ARPINT
ARPRST
LOCK
FWON
DFCT
NORF
MD2
MUTE
XDACS3
XDACS2
KARAOKEON
SPGAIN
XDRVMUTE
LDMP/DMP
LDMM/DMM
CKMP
CKMM
CKSW1
DLSW
UCSW
EXPI2
EXPI1
CKSW2
R643 330
R636 330
R637 100
C605 0.01u B
C606 0.01u B
C607 0.01u B
MB-82/85 BOARD(3/10)
MB-82/85 BOARD(5/10)
MB-82/85 BOARD(4/10)
XSDPCS
XSDPRD
XSDPWR
XSDPIT
XSDPRST
XRAMWE
XRAMOE
XARPCS
XARPRD
XARPWR
XARPWT
XARPIT
XARPRST
SPGAIN
CKSW1
SIN
SOT
SCK
AMC
MAMUTE
MICMUTE
EURDV/Y
RGBSEL
VS
FCSON
EXPO0
EXPO1
SPDLSTOP
MCK
DSLED
XHDSPCS
OCSW2/DOCLS
OCSW1/DOOPN
TSW3/SSW3
TSW2/SSW2
TSW1/DSW1
LDSW1/DSW1
TRMS/STMM
TRMP/STMP
AVDRST
AVDWT
XJDWT/EXPI0
XJDCS/EXPO3
DREQ1IN
DREQ0IN
AVDIO0
R634 10k
R635 10k
R630 10k
R631 10k
RB601 10k
+5V
MB-82/85 BOARD(9/10) MAMUTE
MB-82/85 BOARD(9/10) VS
MB-82/85 BOARD(8/10) N27MHGA
MB-82/85 BOARD(4/10) SPDLSTOP
XAVDWT MB-82/85 BOARD(1/10)
XAVDRST MB-82/85 BOARD(2/10)
OCSW1
OCSW2
EXPO0 MB-82/85 BOARD(9/10)
FCSON MB-82/85 BOARD(3/10)
05
NO MARK:DVD/CD PLAY

MB-82/85 (CLOCK GENERATOR, AUDIO DSP, V EQ/NR) SCHEMATIC DIAGRAM • See page 4-17 for printed wiring board and page 4-40 for waveforms.

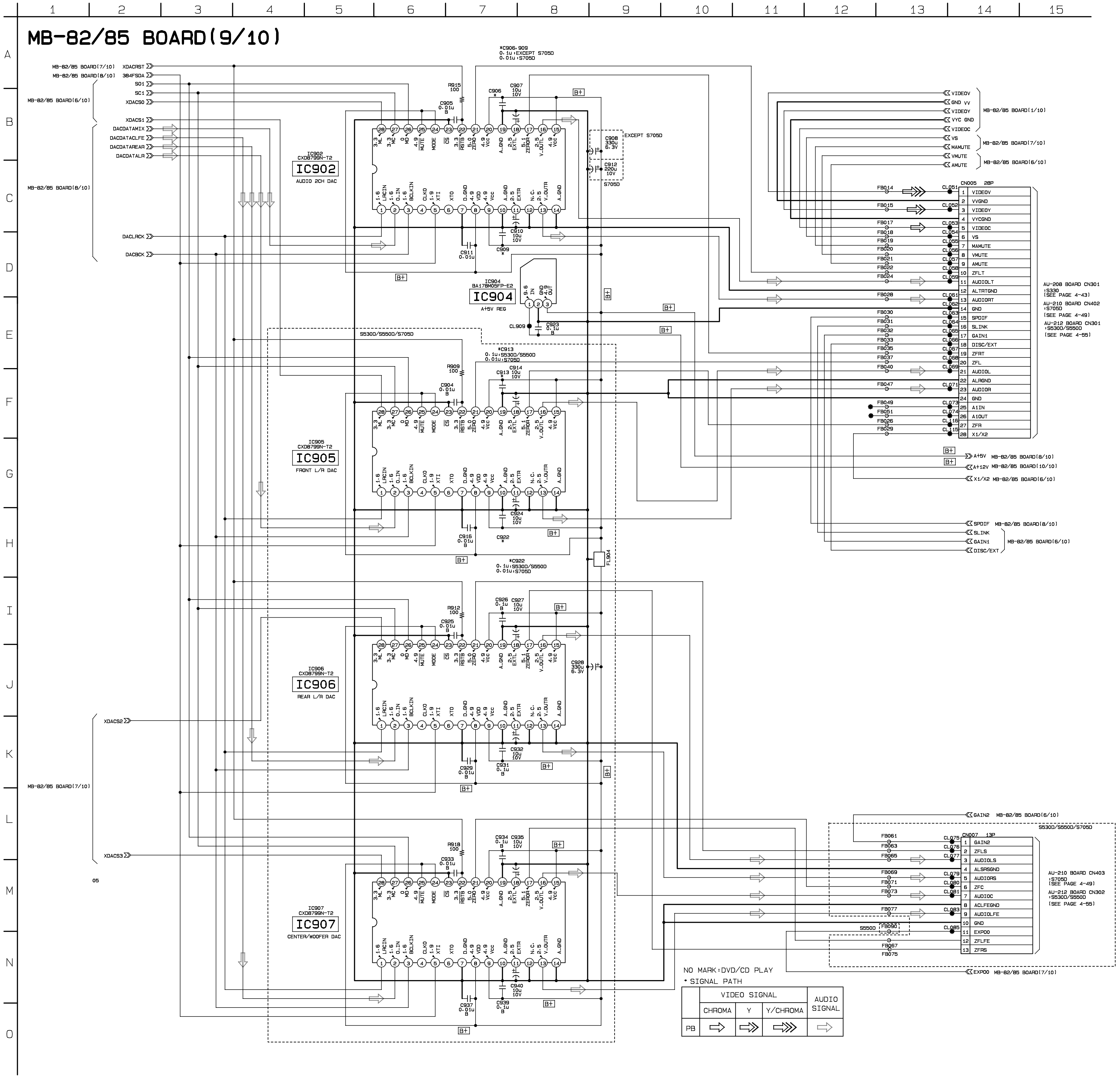
– Ref. No.: MB-82/85 board; 1,000 series –


MB-82/85 BOARD(8/10)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
A B C D E F G H I J K L M
IC501 CXD1901R
IC501
AUDIO DSP
IC502 CXD1857Q
IC502
V EQ/NR
IC001 PLL1700E/2K
IC001
PLL
IC003 TC7WH04FU(TE12R)
IC003
BUS BUFFER
IC004 TC7WH04FU(TE12R)
IC004
BUS BUFFER
IC005 NJM2370U33-TE2
IC005
+3.3V REG
X001 27MHz
MB-82/85 BOARD(10/10)
+3.3V
GND
MB-82/85 BOARD(9/10)
DACBCK
DACLRCK
DACDATAMIX
DACDATACLFE
DACDATAREAR
DACDATALR
SPDIF
SPDIF1
MB-82/85 BOARD(1/10)
EXCEPT S330
S330
S530D/S550D/S705D
S550D/S705D
MB-82/85 BOARD(6/10)
CKSEL
DVD/CD
256FS30
MB-82/85 BOARD(5/10)
33MARP
MB-82/85 BOARD(7/10)
N27MHGA
MB-82/85 BOARD(3/10)
N27MSDP
384FSDA
SC1
SI1
XO1CS
SO1
XO1IT1
XO1IT0
ACH12
ACH34
ACH56
LRCK
BCK
XO1RST
CDDOUT
CDDATA
CDBCK
CDLRCK
PDI0
PDI1
PDI2
PDI3
PDI4
PDI5
PDI6
PDI7
MB-82/85 BOARD(2/10)
PDO0
PDO1
PDO2
PDO3
PDO4
PDO5
PDO6
PDO7
SDOUT
SENO
HSYNCO
FLDO
X57RST
MB-82/85 BOARD A+5V
MB-82/85 BOARD GND
27M30
33M30
FL501
FL502
FL503
FL008
FL009
FL010
FL015
FL016
L001 10uH
B+
NO MARK:DVD PLAY
CD:CD PLAY
• SIGNAL PATH
VIDEO SIGNAL
Y/CHROMA
AUDIO SIGNAL
PB

CLOCK GENERATOR, AUDIO DSP, V EQ/NR
MB-82/85 (8/10)

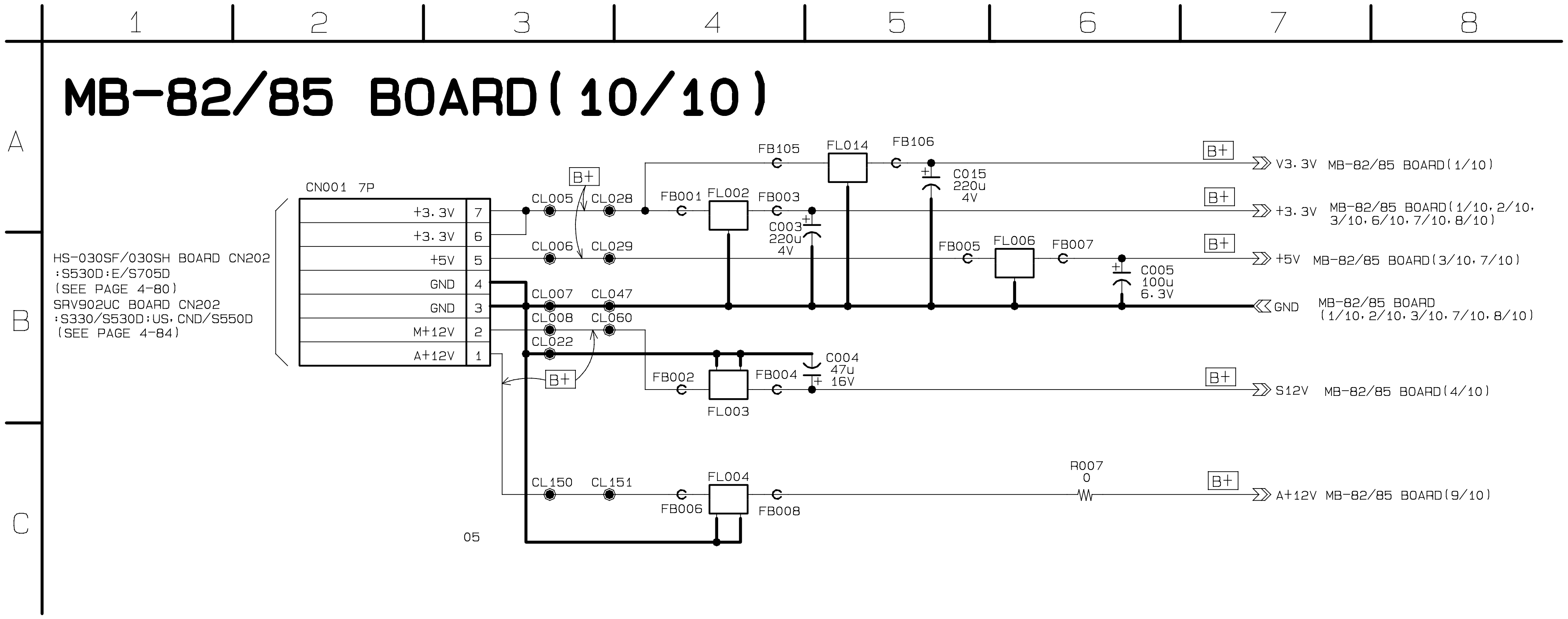
MB-82/85 (DAC) SCHEMATIC DIAGRAM • **See page 4-17 for printed wiring board.**

– Ref. No.: MB-82/85 board; 1,000 series –


MB-82/85 BOARD(9/10)
MB-82/85 BOARD(7/10) XDACRST
MB-82/85 BOARD(8/10) 384FSDA
MB-82/85 BOARD(6/10)
SO1
SC1
XDACS0
XDACS1
DACDATAMIX
DACDATACLFE
DACDATAREAR
DACDATALR
MB-82/85 BOARD(8/10)
DACLRCK
DACBCK
*C906, 909
0.1u : EXCEPT S705D
0.01u : S705D
R915 100
C905 0.01u B
C906 *
C907 10u 10V
C908 330u 6.3V
C912 220u 10V
EXCEPT S705D
S705D
IC902
CXD8799N-T2
IC902
AUDIO 2CH DAC
C910 10u 10V
C911 0.01u
C909 *
IC904
BA178M05FP-E2
IC904
A+5V REG
CL909
C923 0.1u B
S530D/S550D/S705D
*C913
0.1u : S530D/S550D
0.01u : S705D
R909 100
C904 0.01u B
C913 C914 10u 10V
IC905
CXD8799N-T2
IC905
FRONT L/R DAC
C916 0.01u B
C922 *
C924 10u 10V
*C922
0.1u : S530D/S550D
0.01u : S705D
FL904
R912 100
C925 0.01u B
C926 0.1u B
C927 10u 10V
C928 330u 6.3V
IC906
CXD8799N-T2
IC906
REAR L/R DAC
XDACS2
MB-82/85 BOARD(7/10)
C929 0.01u B
C931 0.1u B
C932 10u 10V
XDACS3
R918 100
C933 0.01u B
C934 0.1u B
C935 10u 10V
IC907
CXD8799N-T2
IC907
CENTER/WOOFER DAC
C937 0.01u B
C939 0.1u B
C940 10u 10V
B+
VIDEOV
GND VV
VIDEOY
VYC GND
VIDEOC
MB-82/85 BOARD(1/10)
VS
MAMUTE
MB-82/85 BOARD(7/10)
VMUTE
AMUTE
MB-82/85 BOARD(6/10)
CN005 28P
1 VIDEOV
2 VVGND
3 VIDEOY
4 VYCGND
5 VIDEOC
6 VS
7 MAMUTE
8 VMUTE
9 AMUTE
10 ZFLT
11 AUDIOLT
12 ALTRTGND
13 AUDIORT
14 GND
15 SPDIF
16 SLINK
17 GAIN1
18 DISC/EXT
19 ZFRT
20 ZFL
21 AUDIOL
22 ALRGND
23 AUDIOR
24 GND
25 A1IN
26 A1OUT
27 ZFR
28 X1/X2
AU-208 BOARD CN301
:S330
(SEE PAGE 4-43)
AU-210 BOARD CN402
:S705D
(SEE PAGE 4-49)
AU-212 BOARD CN301
:S530D/S550D
(SEE PAGE 4-55)
A+5V MB-82/85 BOARD(8/10)
A+12V MB-82/85 BOARD(10/10)
X1/X2 MB-82/85 BOARD(6/10)
SPDIF MB-82/85 BOARD(8/10)
SLINK
GAIN1
DISC/EXT
MB-82/85 BOARD(6/10)
GAIN2 MB-82/85 BOARD(6/10)
S530D/S550D/S705D
CN007 13P
1 GAIN2
2 ZFLS
3 AUDIOLS
4 ALSRSGND
5 AUDIORS
6 ZFC
7 AUDIOC
8 ACLFEGND
9 AUDIOLFE
10 GND
11 EXP00
12 ZFLFE
13 ZFRS
S550D
AU-210 BOARD CN403
:S705D
(SEE PAGE 4-49)
AU-212 BOARD CN302
:S530D/S550D
(SEE PAGE 4-55)
EXP00 MB-82/85 BOARD(7/10)
NO MARK : DVD/CD PLAY
• SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
PB

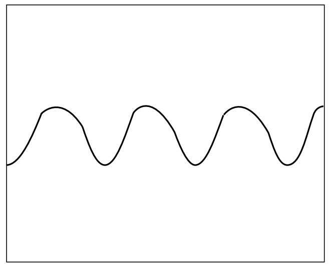
MB-82/85 (BIAS) SCHEMATIC DIAGRAM **• See page 4-17 for printed wiring board.**

– Ref. No.: MB-82/85 board; 1,000 series –


1
2
3
4
5
6
7
8
A
B
C
MB-82/85 BOARD(10/10)
CN001 7P
+3.3V 7
+3.3V 6
+5V 5
GND 4
GND 3
M+12V 2
A+12V 1
HS-030SF/030SH BOARD CN202
:S530D:E/S705D
(SEE PAGE 4-80)
SRV902UC BOARD CN202
:S330/S530D:US,CND/S550D
(SEE PAGE 4-84)
CL005
CL028
CL006
CL029
CL007
CL047
CL008
CL060
CL022
CL150
CL151
B+
FB105
FL014
FB106
FB001
FL002
FB003
C003 220u 4V
C015 220u 4V
FB005
FL006
FB007
C005 100u 6.3V
FB002
FL003
FB004
C004 47u 16V
FL004
FB006
FB008
R007 0
V3.3V MB-82/85 BOARD(1/10)
+3.3V MB-82/85 BOARD(1/10,2/10,3/10,6/10,7/10,8/10)
+5V MB-82/85 BOARD(3/10,7/10)
GND MB-82/85 BOARD (1/10,2/10,3/10,7/10,8/10)
S12V MB-82/85 BOARD(4/10)
A+12V MB-82/85 BOARD(9/10)
05

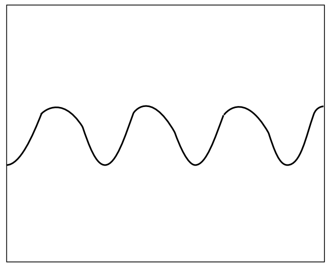
• Waveforms

❶ IC004 ②, ⑤, ⑦



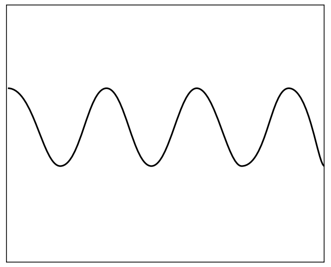
4.2 Vp-p (26.9 MHz)

❷ IC003 ⑤, ⑦



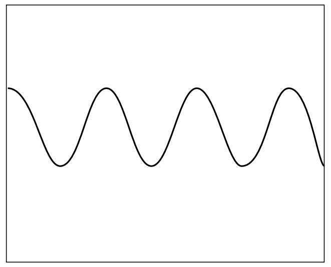
DVD: 6.2 Vp-p (37.0 MHz)
CD : 5 Vp-p (33.6 MHz)

❸ IC001 ⑥



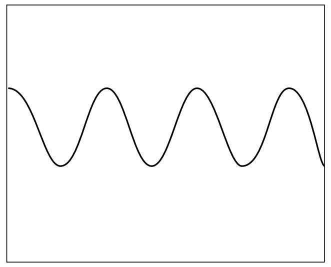
4.2 Vp-p (27.0 MHz)

❹ IC001 ⑫



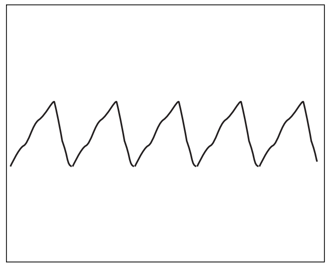
4.6 Vp-p (33.8 MHz)

❺ IC001 ⑬



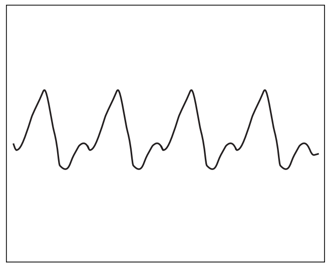
DVD: 5.6 Vp-p (36.8 MHz)
CD : 5.2 Vp-p (33.9 MHz)

❻ IC001 ⑭ (DVD play)



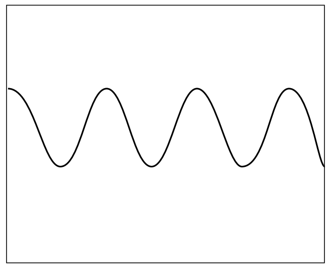
4.2 Vp-p (25.3 MHz)

❼ IC001 ⑭ (CD play)



4.7 Vp-p (22.5 MHz)

❽ IC001 ⑰



DVD: 5.8 Vp-p (36.5 MHz)
CD : 5.1 Vp-p (33.8 MHz)

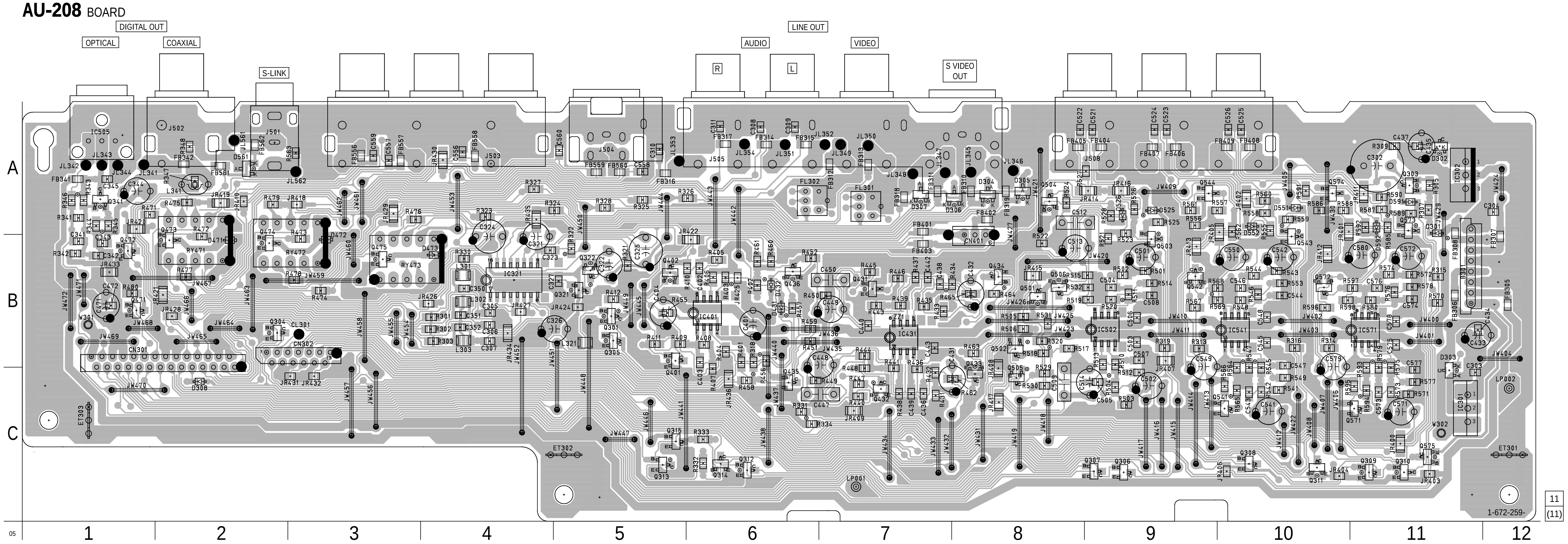
AU-208 (AUDIO, VIDEO BUFFER) PRINTED WIRING BOARD

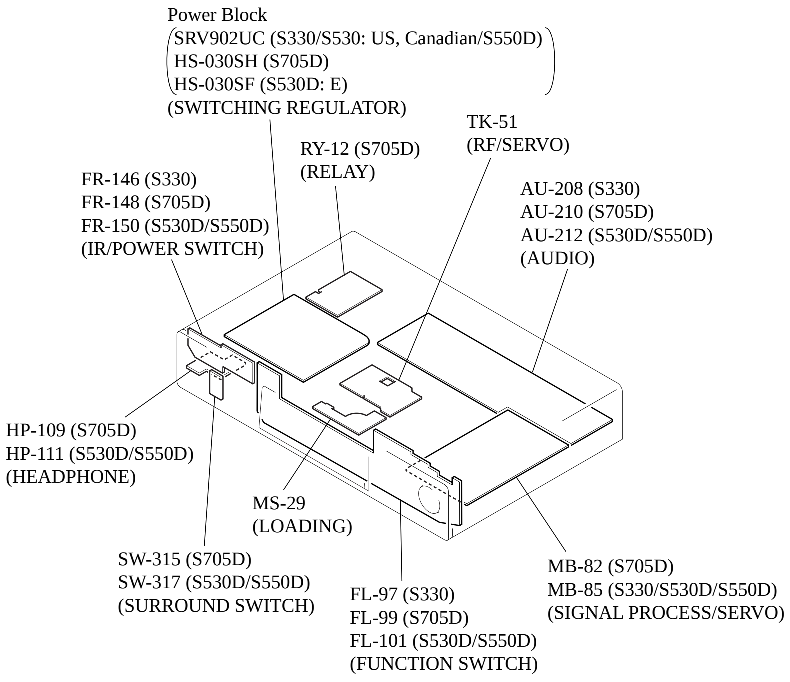
– Ref. No.: AU-208 board; 2,000 series –

– DVP-S330 –

There are few cases that the part isn't mounted in this model is printed on this diagram.

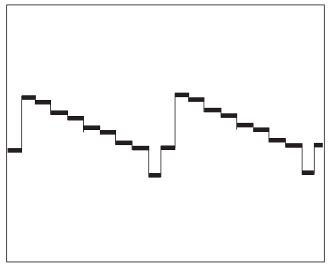
AU-208 BOARD	
CN301	B-2
D301	A-11
D304	A-8
D305	A-8
D306	A-8
D307	A-7
D308	C-2
D431	B-6
D432	B-6
D561	A-2
IC301	C-11
IC302	A-11
IC321	B-4
IC431	B-7
IC505	A-1
Q301	B-5
Q303	A-11
Q304	B-2
Q305	B-5
Q321	B-5
Q322	B-5
Q341	A-1
Q433	C-8
Q434	B-8
Q435	C-6
Q436	B-6
Q575	C-11


AU-208 BOARD
DIGITAL OUT
OPTICAL
COAXIAL
S-LINK
LINE OUT
AUDIO
VIDEO
R
L
S VIDEO OUT
IC505
J502
J501
J503
J504
J505
J508
IC321
IC401
IC431
IC502
IC541
IC571
IC302
IC301
CN301
CN302
CN401
FL301
FL302
ET301
ET302
ET303
LP001
LP002
A
B
C
1
2
3
4
5
6
7
8
9
10
11
12
11
(11)
1-672-259-
05


Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)
TK-51
(RF/SERVO)
RY-12 (S705D)
(RELAY)
FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)
AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)
HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)
MS-29
(LOADING)
SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)
FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)
MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

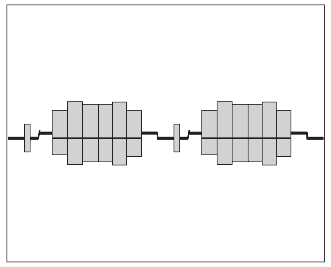
• Waveforms

❶ IC321 ②



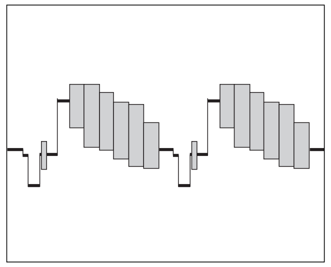
1.1 Vp-p (H)

❸ IC321 ⑦



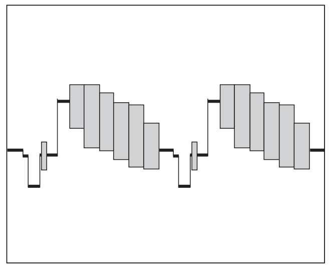
860 mVp-p (H)

❺ IC321 ⑬



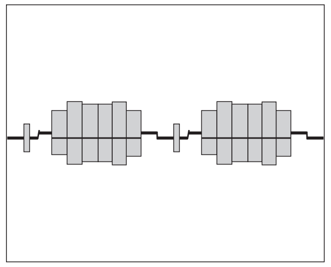
2.4 Vp-p (H)

❷ IC321 ④



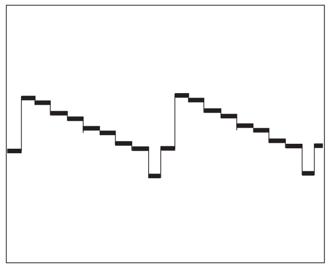
1.2 Vp-p (H)

❹ IC321 ⑩



1.8 Vp-p (H)

❻ IC321 ⑮

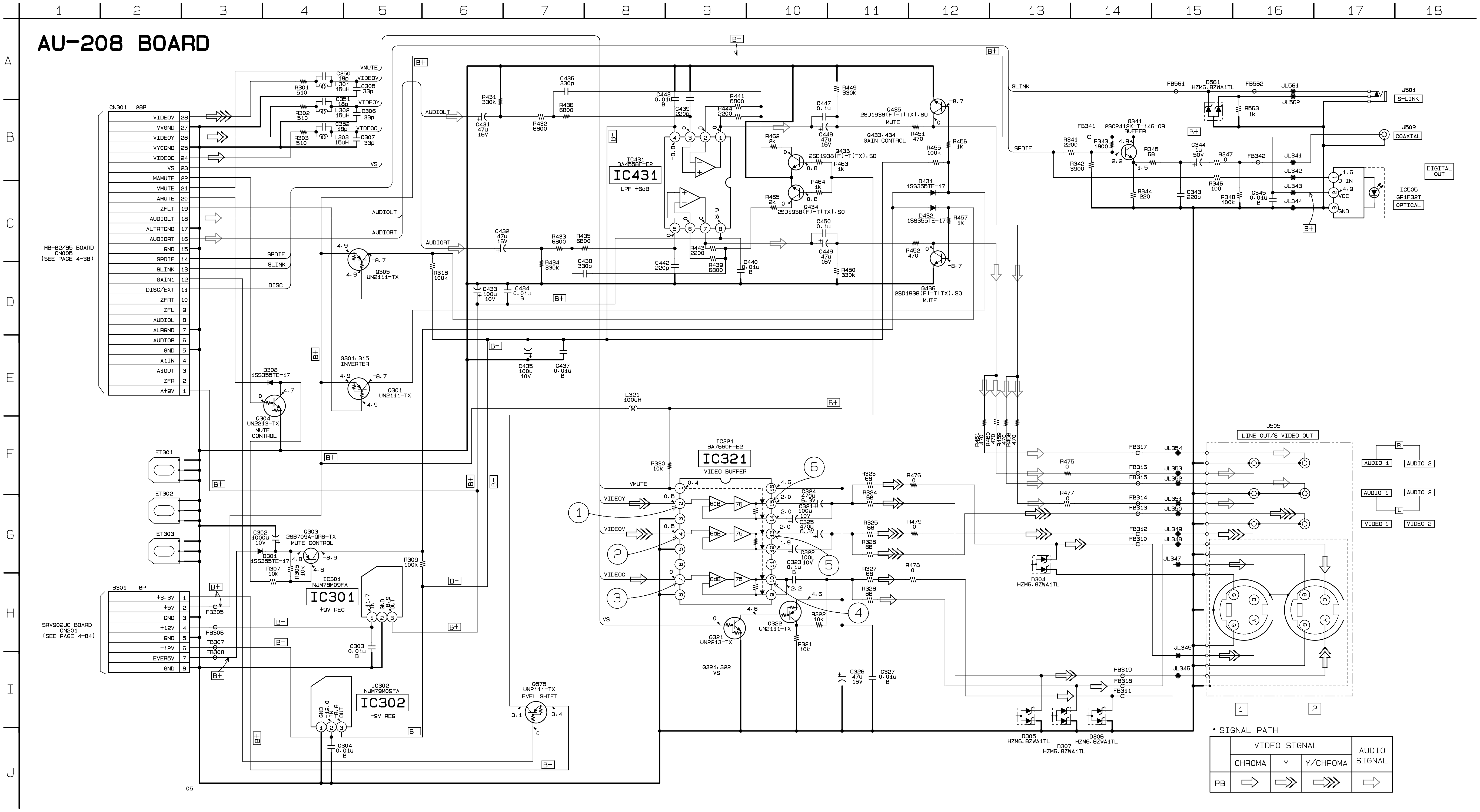


2.0 Vp-p (H)

AU-208 (AUDIO, VIDEO BUFFER) SCHEMATIC DIAGRAM

– Ref. No.: AU-208 board; 2,000 series –

– DVP-S330 –


AU-208 BOARD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
A B C D E F G H I J
CN301 28P
MB-82/85 BOARD CN005 (SEE PAGE 4-38)
VIDEOV 28
VVGND 27
VIDEOY 26
VYCGND 25
VIDEOC 24
VS 23
MAMUTE 22
VMUTE 21
AMUTE 20
ZFLT 19
AUDIOLT 18
ALTRTGND 17
AUDIORT 16
GND 15
SPDIF 14
SLINK 13
GAIN1 12
DISC/EXT 11
ZFRT 10
ZFL 9
AUDIOL 8
ALRGND 7
AUDIOR 6
GND 5
A1IN 4
A1OUT 3
ZFR 2
A+9V 1
B301 8P
SRV902UC BOARD CN201 (SEE PAGE 4-84)
+3.3V 1
+5V 2
GND 3
+12V 4
GND 5
-12V 6
EVER5V 7
GND 8
ET301
ET302
ET303
IC431 BA4558F-E2
IC431
LPF +6dB
IC321 BA7660F-E2
IC321
VIDEO BUFFER
IC301 NJM78M09FA
IC301
+9V REG
IC302 NJM79M09FA
IC302
-9V REG
Q435 2SD1938(F)-T(TX).SO MUTE
Q433,434 GAIN CONTROL
Q433 2SD1938(F)-T(TX).SO
Q434 2SD1938(F)-T(TX).SO
Q436 2SD1938(F)-T(TX).SO MUTE
Q341 2SC2412K-T-146-QR BUFFER
Q305 UN2111-TX
Q301,315 INVERTER
Q301 UN2111-TX
Q304 UN2213-TX MUTE CONTROL
Q303 2SB709A-QRS-TX MUTE CONTROL
Q321 UN2213-TX
Q322 UN2111-TX
Q321,322 VS
Q575 UN2111-TX LEVEL SHIFT
D308 1SS355TE-17
D301 1SS355TE-17
D431 1SS355TE-17
D432 1SS355TE-17
D561 HZM6.8ZWA1TL
D304 HZM6.8ZWA1TL
D305 HZM6.8ZWA1TL
D306 HZM6.8ZWA1TL
D307 HZM6.8ZWA1TL
L321 100uH
IC505 GP1F32T
J501 S-LINK
J502 COAXIAL
DIGITAL OUT
OPTICAL
J505 LINE OUT/S VIDEO OUT
AUDIO 1
AUDIO 2
VIDEO 1
VIDEO 2
SLINK
SPDIF
VMUTE
VIDEOY
VIDEOV
VIDEOC
VS
AUDIOLT
AUDIORT
DISC
B+
B-
① ② ③ ④ ⑤ ⑥
1 2
• SIGNAL PATH
VIDEO SIGNAL
AUDIO SIGNAL
CHROMA
Y
Y/CHROMA
PB
05

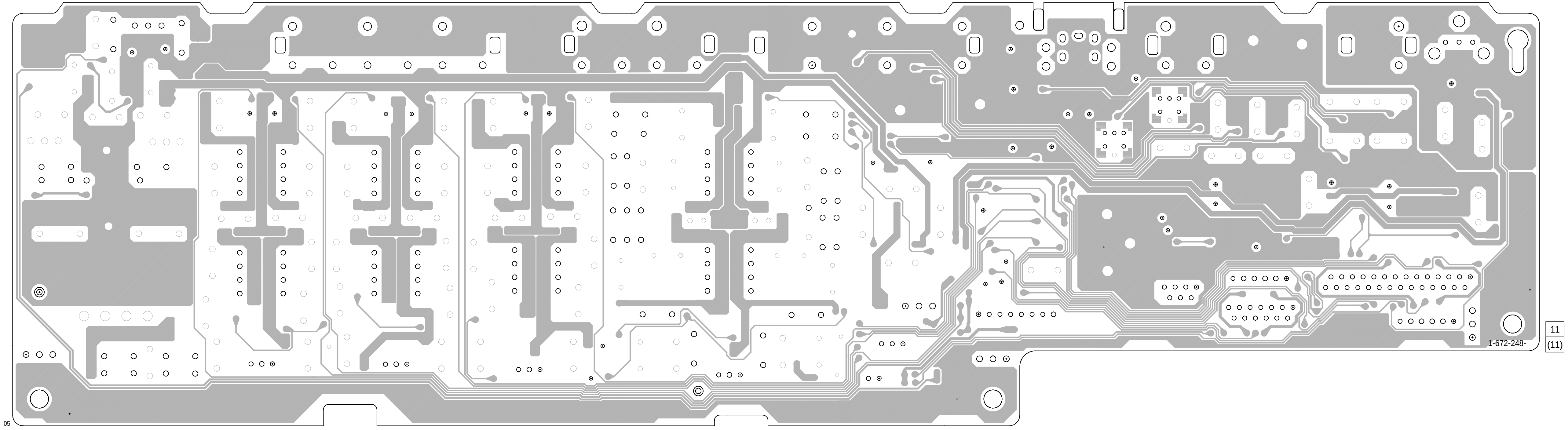
AU-210 (AUDIO, VIDEO BUFFER) PRINTED WIRING BOARD

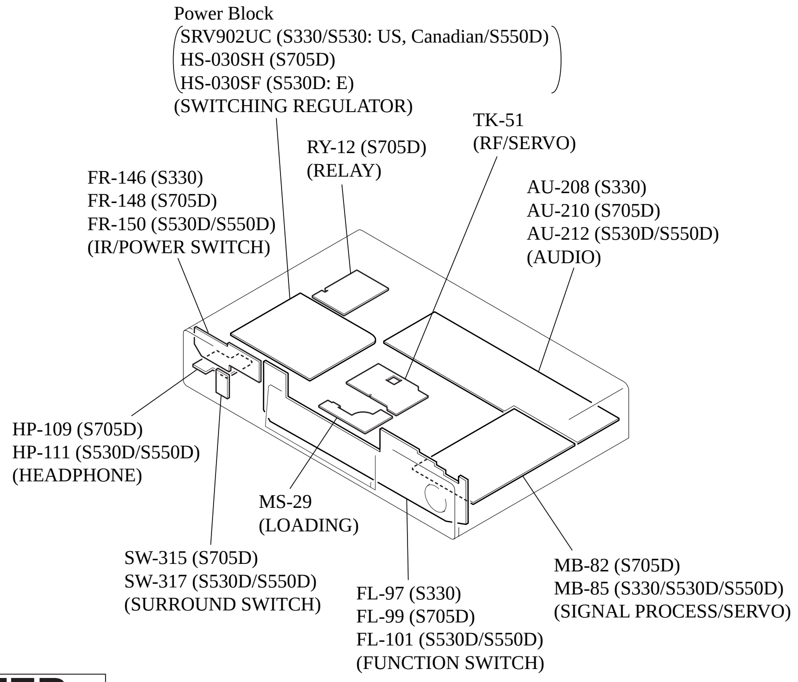
– Ref. No.: AU-210 board; 3,000 series –

– DVP-S705D –

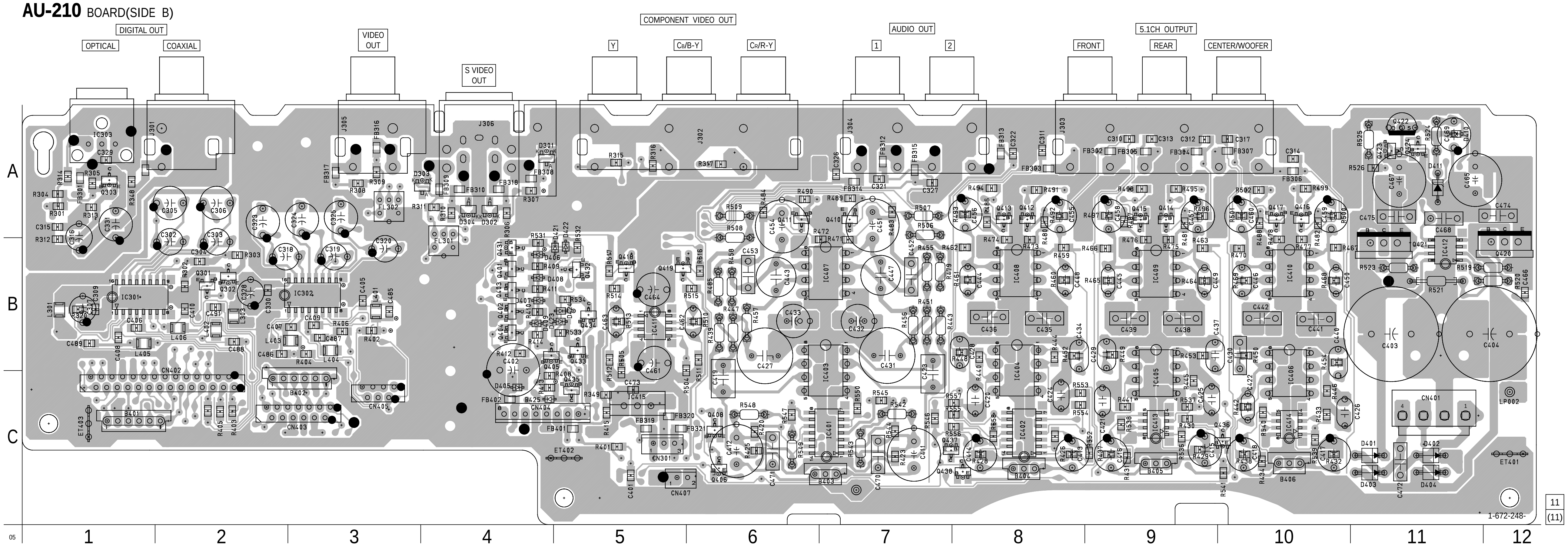
There are few cases that the part isn't mounted in this model is printed on this diagram.

AU-210 BOARD(SIDE A)


1-672-248-
11
(11)
05


Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)
TK-51
(RF/SERVO)
RY-12 (S705D)
(RELAY)
FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)
AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)
HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)
MS-29
(LOADING)
SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)
FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)
MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

AU-210 BOARD(SIDE B)


DIGITAL OUT
OPTICAL
COAXIAL
VIDEO OUT
S VIDEO OUT
COMPONENT VIDEO OUT
Y
CB/B-Y
CR/R-Y
AUDIO OUT
1
2
5.1CH OUTPUT
FRONT
REAR
CENTER/WOOFER
A
B
C
1
2
3
4
5
6
7
8
9
10
11
12
11
(11)
1-672-248-
05

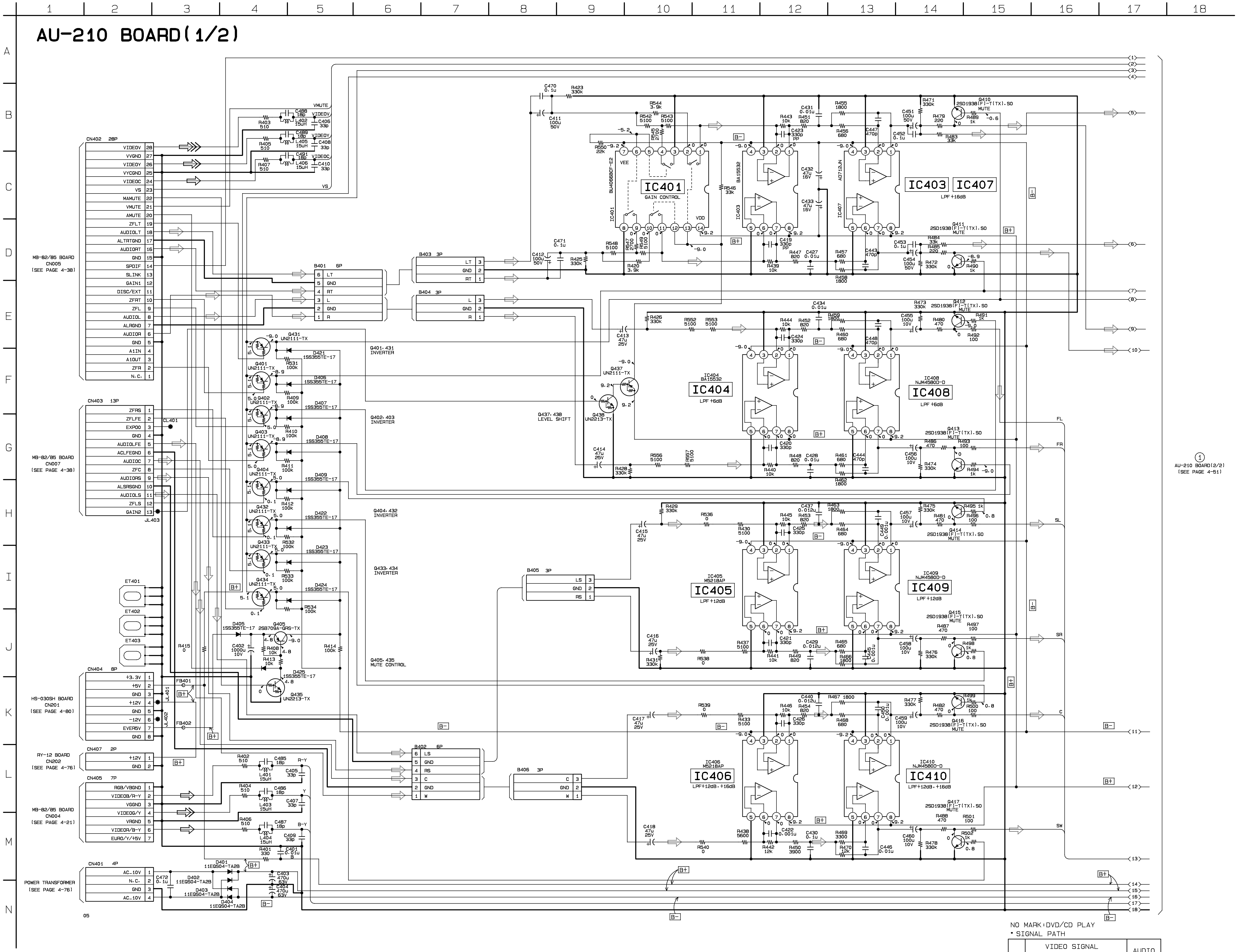
AU-210 BOARD
(SIDE B)

CN301	C-5
CN401	C-11
CN402	C-2
CN403	C-3
CN404	C-4
CN405	C-4
CN407	C-5
D301	A-4
D302	A-4
D303	A-4
D304	A-4
D401	C-11
D402	C-11
D403	C-11
D404	C-11
D405	C-4
D406	B-4
D407	B-4
D408	B-4
D409	B-4
D410	A-11
D411	A-11
D421	B-5
D422	B-5
D423	B-5
D424	B-5
D425	C-4
IC301	B-1
IC302	B-3
IC303	A-1
IC401	C-7
IC403	B-7
IC404	B-8
IC405	C-9
IC406	C-10
IC407	B-7
IC408	B-8
IC409	B-9
IC410	B-10
IC411	B-5
IC412	B-11
IC415	C-5
Q301	B-2
Q302	B-2
Q303	A-1
Q401	B-4
Q402	B-4
Q403	B-4
Q404	B-4
Q405	B-4
Q410	A-7
Q411	A-6
Q412	A-8
Q413	A-8
Q414	A-9
Q415	A-9
Q416	A-10
Q417	A-10
Q418	B-5
Q419	B-5
Q420	B-12
Q421	B-11
Q422	A-11
Q423	A-11
Q424	A-11
Q431	B-4
Q432	B-5
Q433	B-5
Q434	B-5
Q435	C-5
Q437	C-7
Q438	C-8

AU-210 (AUDIO) SCHEMATIC DIAGRAM • See page 4-45 for printed wiring board.

– Ref. No.: AU-210 board; 3,000 series –

– DVP-S705D –


AU-210 BOARD(1/2)
CN402 28P
MB-82/85 BOARD CN005 (SEE PAGE 4-38)
CN403 13P
MB-82/85 BOARD CN007 (SEE PAGE 4-38)
CN404 8P
HS-030SH BOARD CN201 (SEE PAGE 4-80)
CN407 2P
RY-12 BOARD CN202 (SEE PAGE 4-76)
CN405 7P
MB-82/85 BOARD CN004 (SEE PAGE 4-21)
CN401 4P
POWER TRANSFORMER (SEE PAGE 4-76)
B401 6P
B402 6P
B403 3P
B404 3P
B405 3P
B406 3P
IC401 GAIN CONTROL
IC403 IC407 LPF +16dB
IC404 BA15532 LPF +6dB
IC408 NJM4580D-D LPF +6dB
IC405 M5218AP LPF +12dB
IC409 NJM4580D-D LPF +12dB
IC406 M5218AP LPF+12dB, +16dB
IC410 NJM4580D-D LPF+12dB, +16dB
Q401, 431 INVERTER
Q402, 403 INVERTER
Q404, 432 INVERTER
Q433, 434 INVERTER
Q405, 435 MUTE CONTROL
Q437, 438 LEVEL SHIFT
① AU-210 BOARD(2/2) (SEE PAGE 4-51)

NO MARK:DVD/CD PLAY

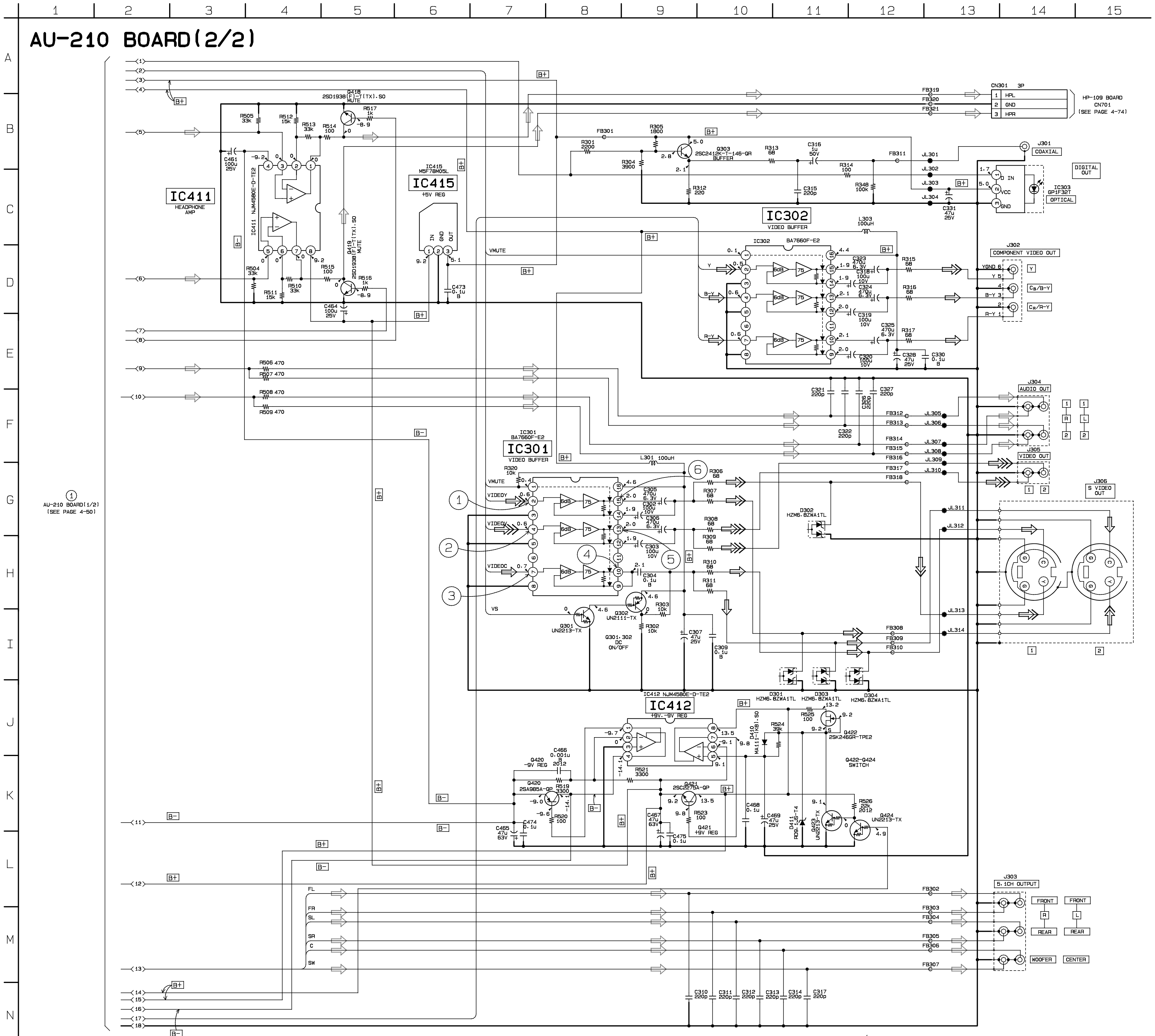
• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
PB	⇨	⇨⇨	⇨⇨⇨	⇨

AU-210 (VIDEO BUFFER) SCHEMATIC DIAGRAM • See page 4-45 for printed wiring board.

– Ref. No.: AU-210 board; 3,000 series –

– DVP-S705D –


AU-210 BOARD(2/2)
IC411 HEADPHONE AMP
IC411 NJM4580E-D-TE2
IC415 M5F78M05L +5V REG
IC302 VIDEO BUFFER BA7660F-E2
IC301 VIDEO BUFFER BA7660F-E2
IC412 NJM4580E-D-TE2 +9V, -9V REG
Q418 2SD1938(F)-T(TX).SO MUTE
Q419 2SD1938(F)-T(TX).SO MUTE
Q303 2SC2412K-T-146-QR BUFFER
Q301 UN2213-TX
Q302 UN2111-TX
Q301, 302 DC ON/OFF
Q420 2SA985A-QP -9V REG
Q421 2SC2275A-QP +9V REG
Q422 2SK246GR-TPE2
Q422-Q424 SWITCH
Q423 UN2213-TX
Q424 UN2213-TX
D301 HZM6.8ZWA1TL
D302 HZM6.8ZWA1TL
D303 HZM6.8ZWA1TL
D304 HZM6.8ZWA1TL
D410 MA111-(K8).SO
D411 RD6.2ES-T4
CN301 3P
HPL
GND
HPR
HP-109 BOARD CN701 (SEE PAGE 4-74)
J301 COAXIAL
DIGITAL OUT
IC303 GP1F32T OPTICAL
J302 COMPONENT VIDEO OUT
Y
CB/B-Y
CR/R-Y
J304 AUDIO OUT
J305 VIDEO OUT
J306 S VIDEO OUT
J303 5.1CH OUTPUT
FRONT R
FRONT L
REAR
WOOFER
CENTER
① AU-210 BOARD(1/2) (SEE PAGE 4-50)
VMUTE
VIDEOY
VIDEOV
VIDEOC
VS
FL
FR
SL
SR
C
SW
05

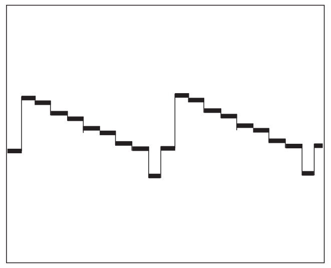
NO MARK:DVD/CD PLAY

• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
PB	⇨	⇨	⇨	⇨

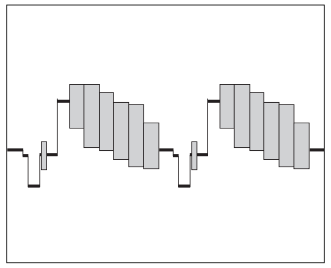
• Waveforms

❶ IC301 ②



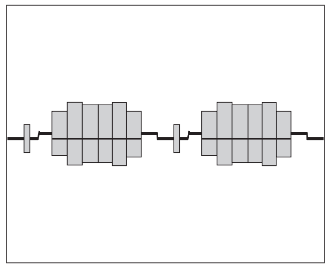
1.1 Vp-p (H)

❷ IC301 ④



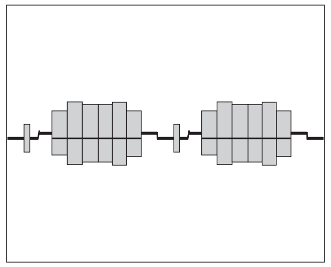
1.2 Vp-p (H)

❸ IC301 ⑦



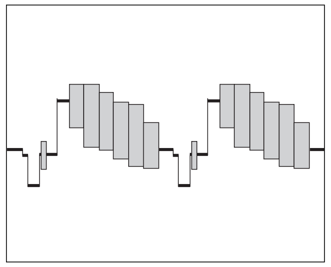
860 mVp-p (H)

❹ IC301 ⑩



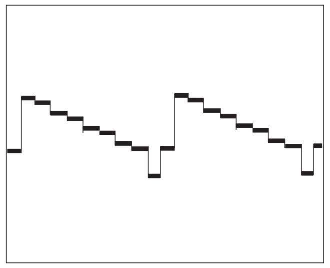
1.8 Vp-p (H)

❺ IC301 ⑬



2.4 Vp-p (H)

❻ IC301 ⑮



2.0 Vp-p (H)

AU-212 (AUDIO, VIDEO BUFFER) PRINTED WIRING BOARD

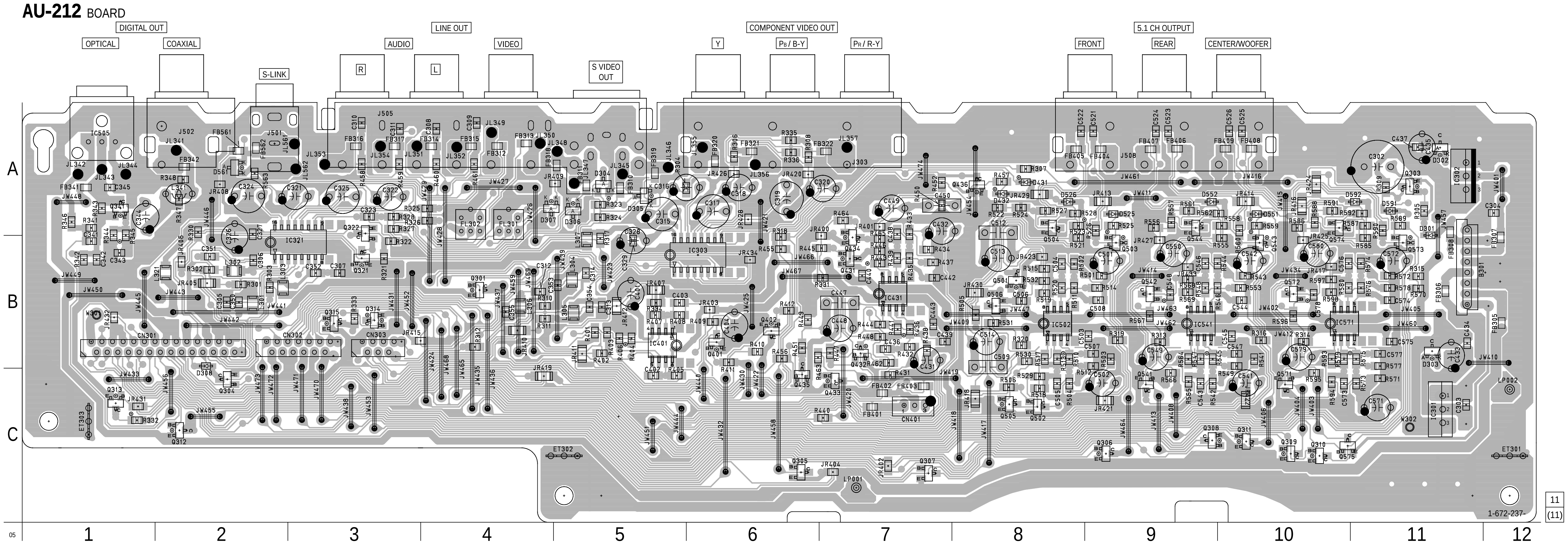
– Ref. No.: AU-212 board; 2,000 series –

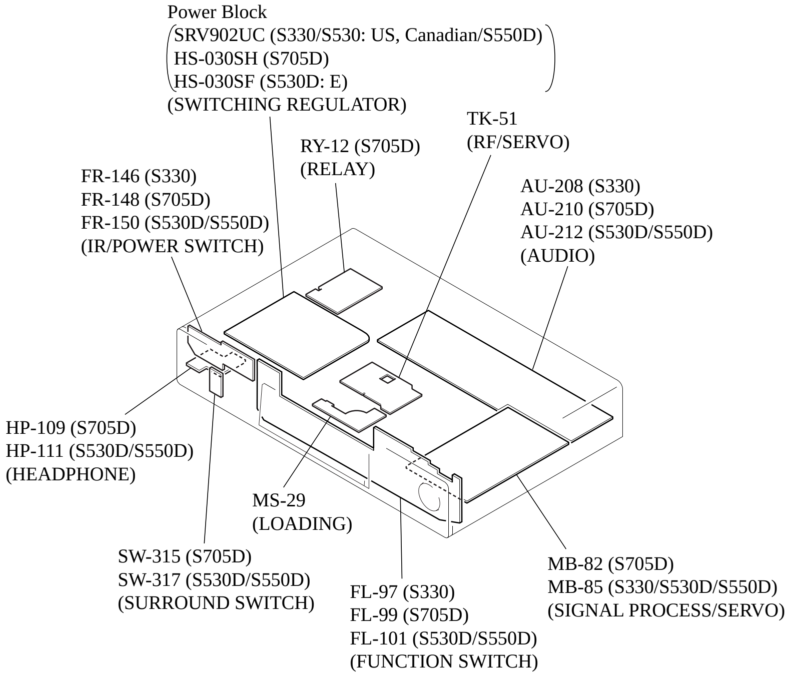
– DVP-S530D/S550D –

There are few cases that the part isn't mounted in this model is printed on this diagram.

AU-212 BOARD

CN301	B-2
CN302	B-3
CN303	B-3
CN401	C-7
D301	A-11
D304	A-5
D305	A-5
D306	A-5
D307	A-5
D308	B-2
D431	A-8
D432	A-8
D525	A-9
D526	A-8
D551	A-10
D552	A-9
D561	A-2
D591	A-11
D592	A-11
IC301	C-11
IC302	A-11
IC303	B-6
IC321	B-3
IC401	B-5
IC431	B-7
IC502	B-8
IC505	A-1
IC541	B-9
IC571	B-10
Q301	B-4
Q303	A-11
Q304	C-2
Q305	C-6
Q306	C-9
Q307	C-7
Q308	C-9
Q309	C-10
Q310	C-10
Q311	C-10
Q314	B-3
Q315	B-3
Q321	B-3
Q322	B-7
Q341	A-1
Q401	B-6
Q402	B-6
Q431	B-7
Q432	C-7
Q435	C-6
Q436	A-8
Q503	B-9
Q504	A-8
Q543	A-10
Q544	A-9
Q573	B-10
Q574	A-10


AU-212 BOARD
DIGITAL OUT
OPTICAL
COAXIAL
S-LINK
LINE OUT
AUDIO
R
L
VIDEO
S VIDEO OUT
COMPONENT VIDEO OUT
Y
PB / B-Y
PR / R-Y
5.1 CH OUTPUT
FRONT
REAR
CENTER/WOOFER
A
B
C
1
2
3
4
5
6
7
8
9
10
11
12
05
1-672-237-
11
(11)


Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)

TK-51
(RF/SERVO)

RY-12 (S705D)
(RELAY)

FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)

AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)

HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)

MS-29
(LOADING)

SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)

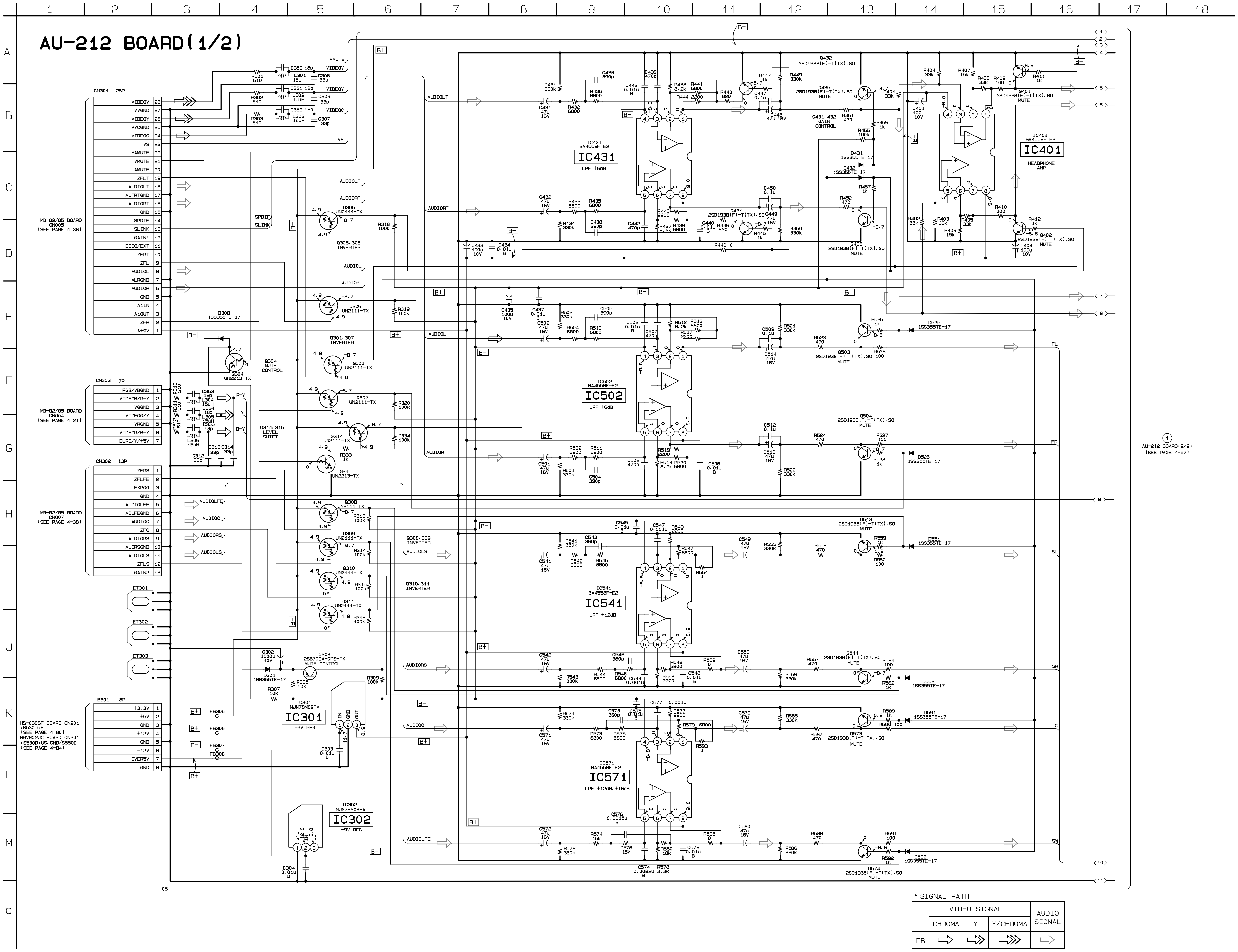
FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)

MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

AU-212 (AUDIO) SCHEMATIC DIAGRAM

– Ref. No.: AU-212 board; 2,000 series –

– DVP-S530D/S550D –


AU-212 BOARD(1/2)
CN301 28P
MB-82/85 BOARD CN005 (SEE PAGE 4-38)
CN303 7P
MB-82/85 BOARD CN004 (SEE PAGE 4-21)
CN302 13P
MB-82/85 BOARD CN007 (SEE PAGE 4-38)
B301 8P
HS-030SF BOARD CN201 (S530D/E) (SEE PAGE 4-80) SRV902UC BOARD CN201 (S530D/US, CND/S550D) (SEE PAGE 4-84)
ET301
ET302
ET303
IC431 BA4558F-E2 LPF +6dB
IC401 BA4558F-E2 HEADPHONE AMP
IC502 BA4558F-E2 LPF +6dB
IC541 BA4558F-E2 LPF +12dB
IC571 BA4558F-E2 LPF +12dB/+16dB
IC301 NJM78M09FA +9V REG
IC302 NJM79M09FA -9V REG
Q304 MUTE CONTROL
Q305, 306 INVERTER
Q301, 307 INVERTER
Q314, 315 LEVEL SHIFT
Q308, 309 INVERTER
Q310, 311 INVERTER
Q303 2SB709A-QRS-TX MUTE CONTROL
Q431, 432 GAIN CONTROL
AU-212 BOARD(2/2) (SEE PAGE 4-57)
FL
FR
SL
SR
C
SW
05

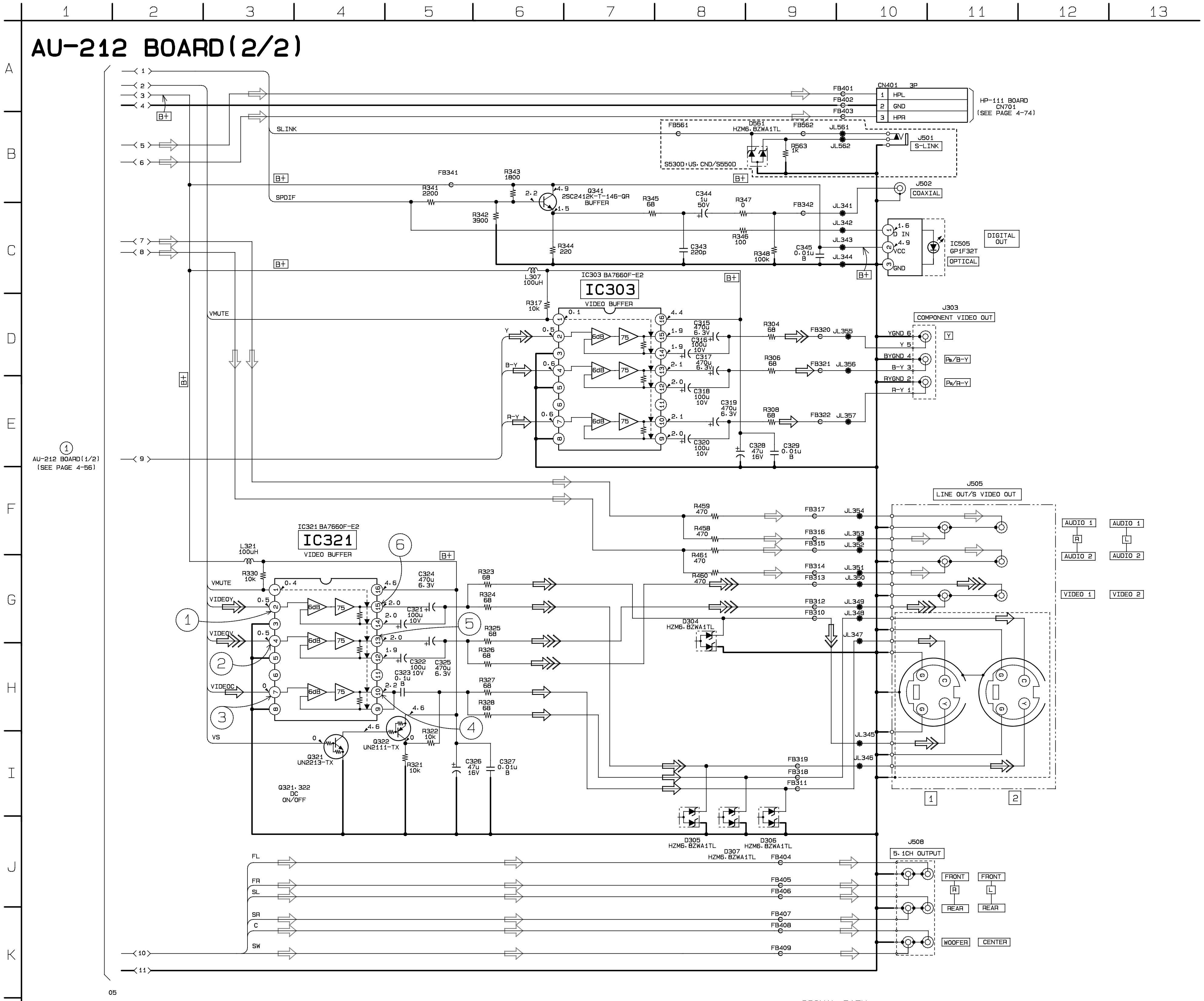
* SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
PB	⇨	⇨⇨	⇨⇨⇨	⇨

AU-212 (VIDEO BUFFER) SCHEMATIC DIAGRAM • See page 4-53 for printed wiring board.

– Ref. No.: AU-212 board; 2,000 series –

– DVP-S530D/S550D –

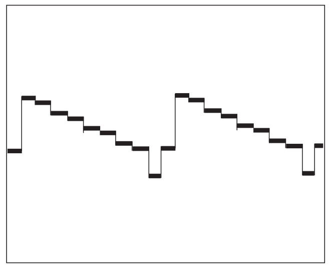

AU-212 BOARD(2/2)
1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I J K L
IC303 BA7660F-E2
IC303
VIDEO BUFFER
IC321 BA7660F-E2
IC321
VIDEO BUFFER
CN401 3P
HPL
GND
HPR
HP-111 BOARD CN701 (SEE PAGE 4-74)
SLINK
SPDIF
J501 S-LINK
J502 COAXIAL
IC505 GP1F32T
OPTICAL
DIGITAL OUT
Q341 2SC2412K-T-146-QR BUFFER
J303 COMPONENT VIDEO OUT
Y
PB/B-Y
PR/R-Y
J505 LINE OUT/S VIDEO OUT
AUDIO 1
AUDIO 2
VIDEO 1
VIDEO 2
J508 5.1CH OUTPUT
FRONT
REAR
WOOFER
CENTER
VMUTE
VIDEOY
VIDEOV
VIDEOC
VS
Q321 UN2213-TX
Q322 UN2111-TX
Q321,322 DC ON/OFF
D304 HZM6.8ZWA1TL
D305 HZM6.8ZWA1TL
D306 HZM6.8ZWA1TL
D307 HZM6.8ZWA1TL
D561 HZM6.8ZWA1TL
S530D:US,CND/S550D
AU-212 BOARD(1/2) (SEE PAGE 4-56)
FL
FR
SL
SR
C
SW
05

• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
PB	⇨	⇨⇨	⇨⇨⇨	⇨

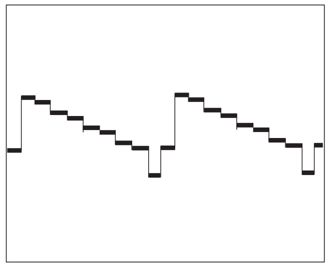
• Waveforms

❶ IC321 ②



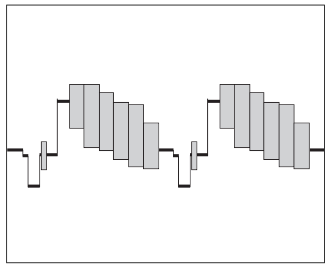
1.1 Vp-p (H)

❻ IC321 ⑮



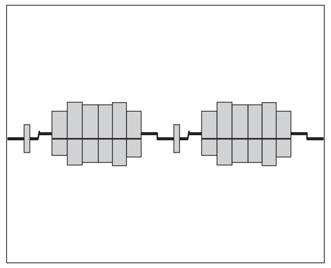
2.0 Vp-p (H)

❷ IC321 ④



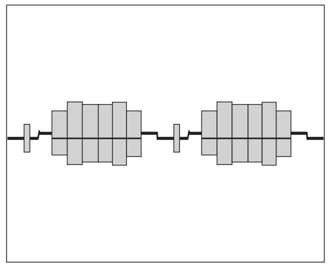
1.2 Vp-p (H)

❸ IC321 ⑦



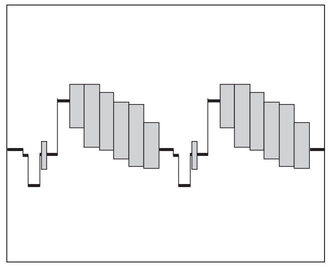
860 mVp-p (H)

❹ IC321 ⑩



1.8 Vp-p (H)

❺ IC321 ⑬



2.4 Vp-p (H)

FL-97/101 (FUNCTION SWITCH, IF CON) PRINTED WIRING BOARD

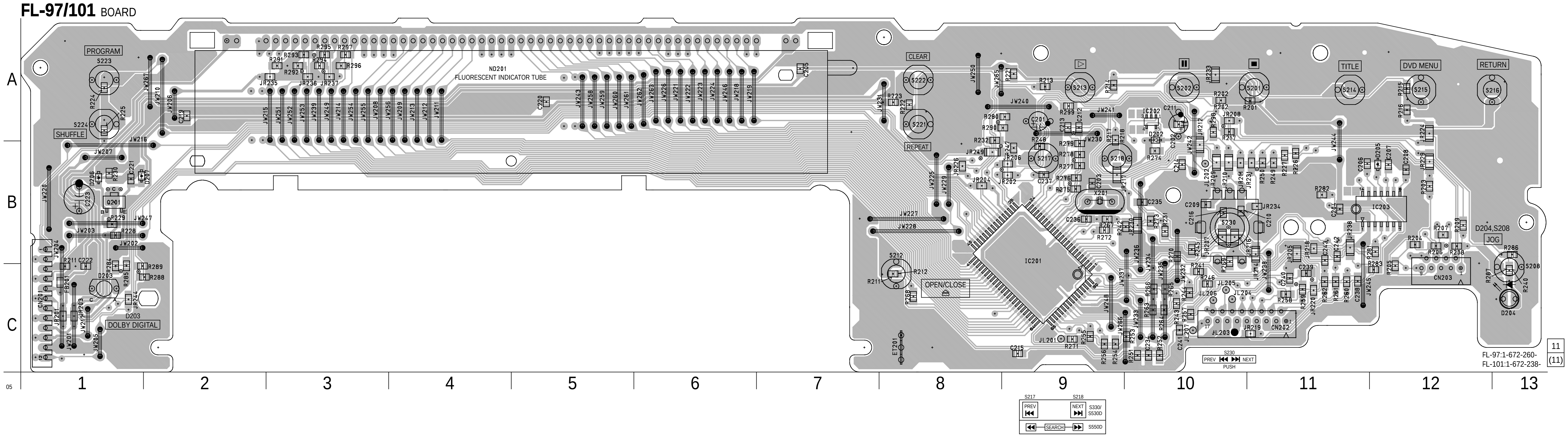
– Ref. No.: FL-97/101 board; 2,000 series –

– DVP-S330/S530D/S550 –

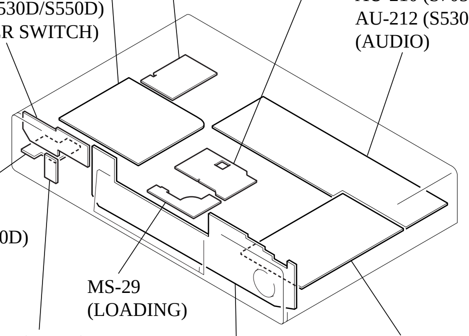
There are few cases that the part isn't mounted in this model is printed on this diagram.

FL-97/101 BOARD

CN201	C-1
CN202	C-10
CN203	C-12
D202	A-10
D203	C-1
D204	C-13
D205	B-12
D206	B-1
D207	B-1
IC201	B-9
IC202	A-10
IC203	B-12
Q201	B-1



FL-97/101 BOARD
A
B
C
1
2
3
4
5
6
7
8
9
10
11
12
13
PROGRAM
S223
S224
SHUFFLE
DOLBY DIGITAL
ND201
FLUORESCENT INDICATOR TUBE
CLEAR
S222
S221
REPEAT
S212
OPEN/CLOSE
S213
S202
S201
TITLE
S214
DVD MENU
S215
RETURN
S216
S217
S218
S230
IC201
IC202
IC203
CN202
CN203
D204,S208
JOG
D204
PREV
NEXT
PUSH
S330/ S530D
S550D
SEARCH
FL-97:1-672-260-
FL-101:1-672-238-
11
(11)



Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)

TK-51
(RF/SERVO)

RY-12 (S705D)
(RELAY)

FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)

AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)

HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)

MS-29
(LOADING)

SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)

FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)

MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

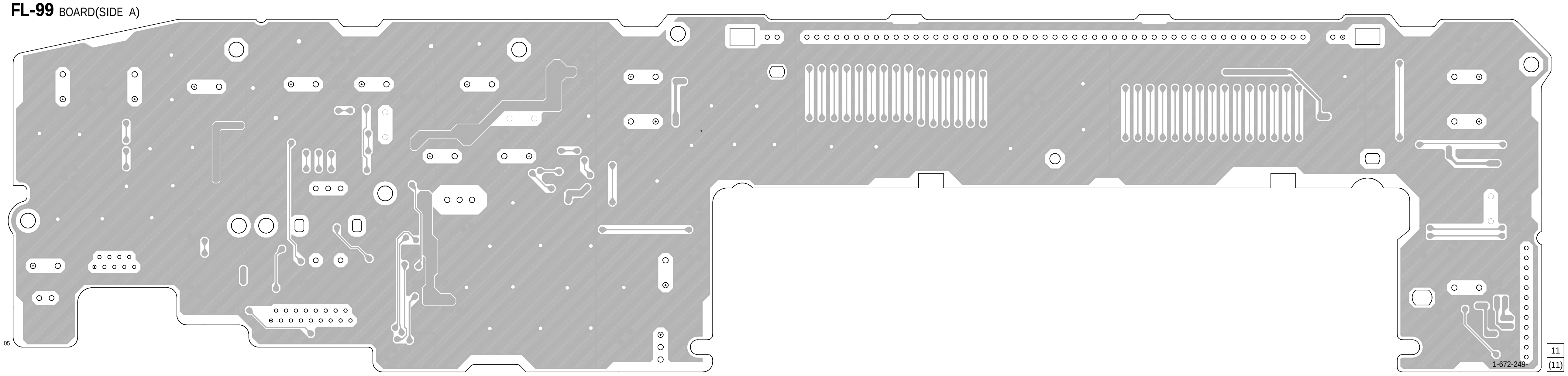
FL-99 (FUNCTION SWITCH, IF CON) PRINTED WIRING BOARD

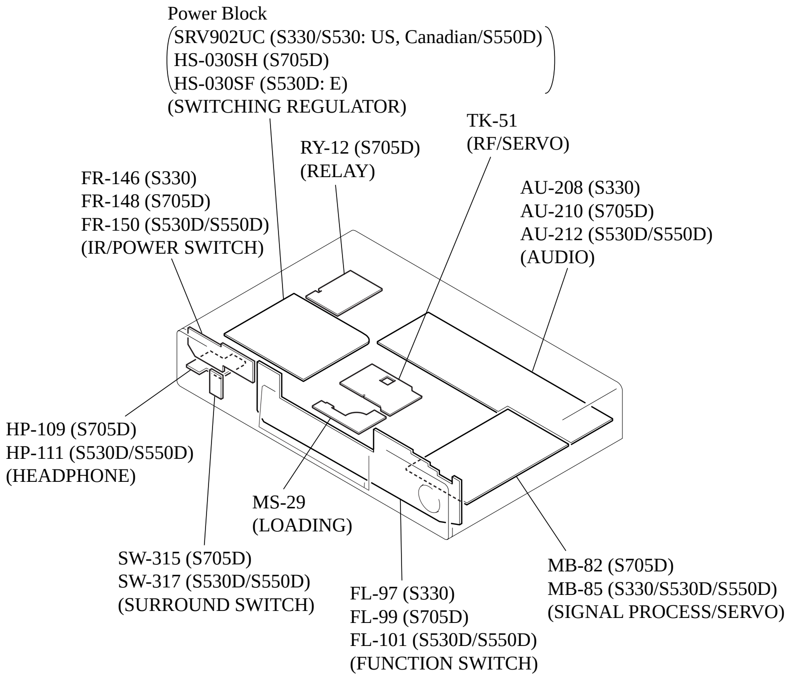
– Ref. No.: FL-99 board; 2,000 series –

– DVP-S705D –

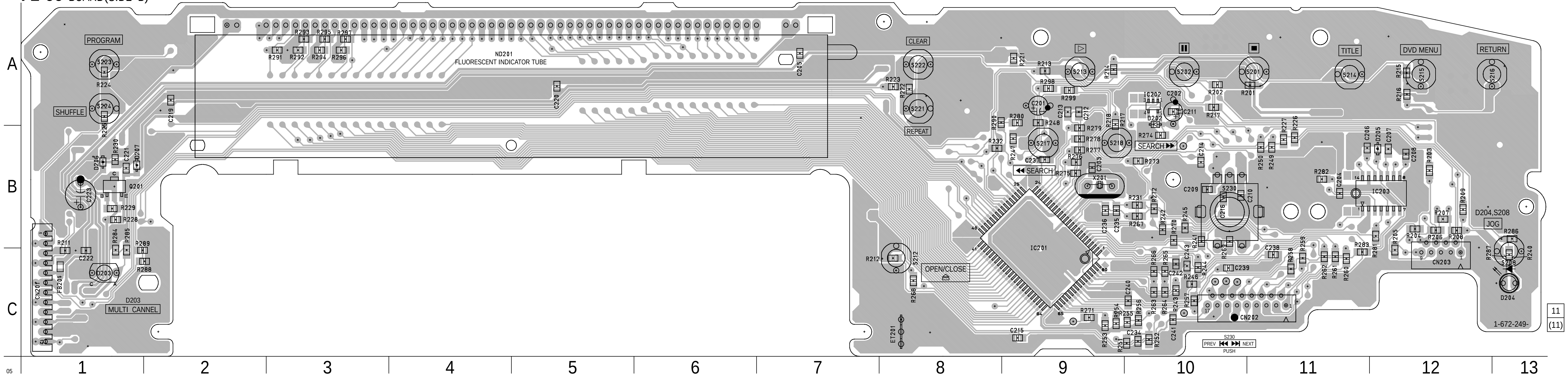
There are few cases that the part isn't mounted in this model is printed on this diagram.

FL-99 BOARD(SIDE A)


05
1-672-249-
11
(11)


Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)
TK-51
(RF/SERVO)
RY-12 (S705D)
(RELAY)
FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)
AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)
HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)
MS-29
(LOADING)
SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)
FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)
MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

FL-99 BOARD(SIDE B)

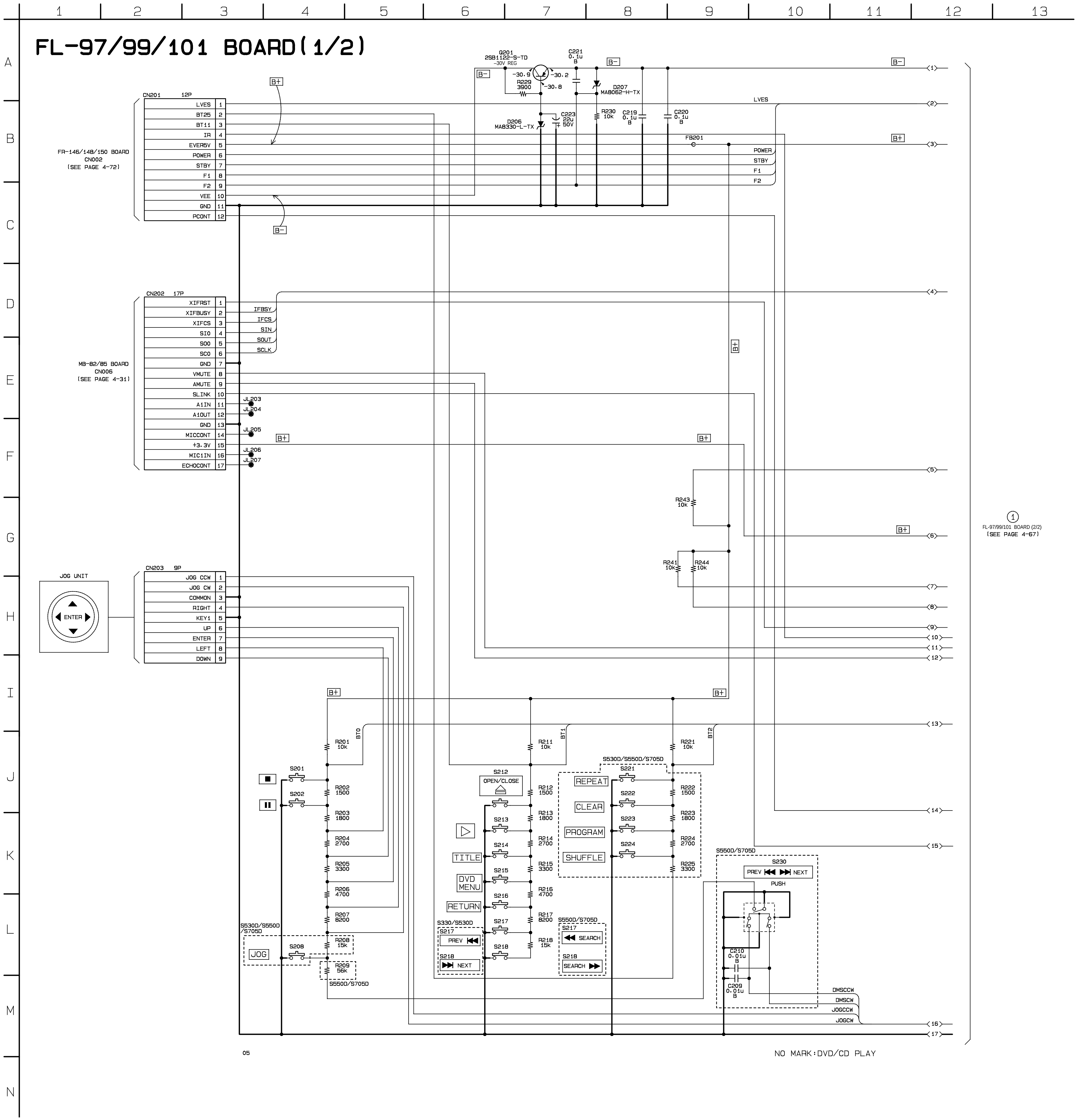


A
B
C
1
2
3
4
5
6
7
8
9
10
11
12
13
PROGRAM
SHUFFLE
MULTI CANNEL
CLEAR
REPEAT
OPEN/CLOSE
SEARCH
SEARCH
TITLE
DVD MENU
RETURN
JOG
D204,S208
ND201
FLUORESCENT INDICATOR TUBE
IC201
IC202
IC203
CN201
CN202
CN203
Q201
X201
S230
PREV
NEXT
PUSH
1-672-249-
11
(11)
05

FL-99 BOARD (SIDE B)	
CN201	C-1
CN202	C-10
CN203	C-12
D202	A-10
D203	C-1
D204	C-13
D205	B-12
D206	B-1
D207	B-1
IC201	B-9
IC202	A-10
IC203	B-12
Q201	B-1

FUNCTION SWITCH, IF CON
FL-99

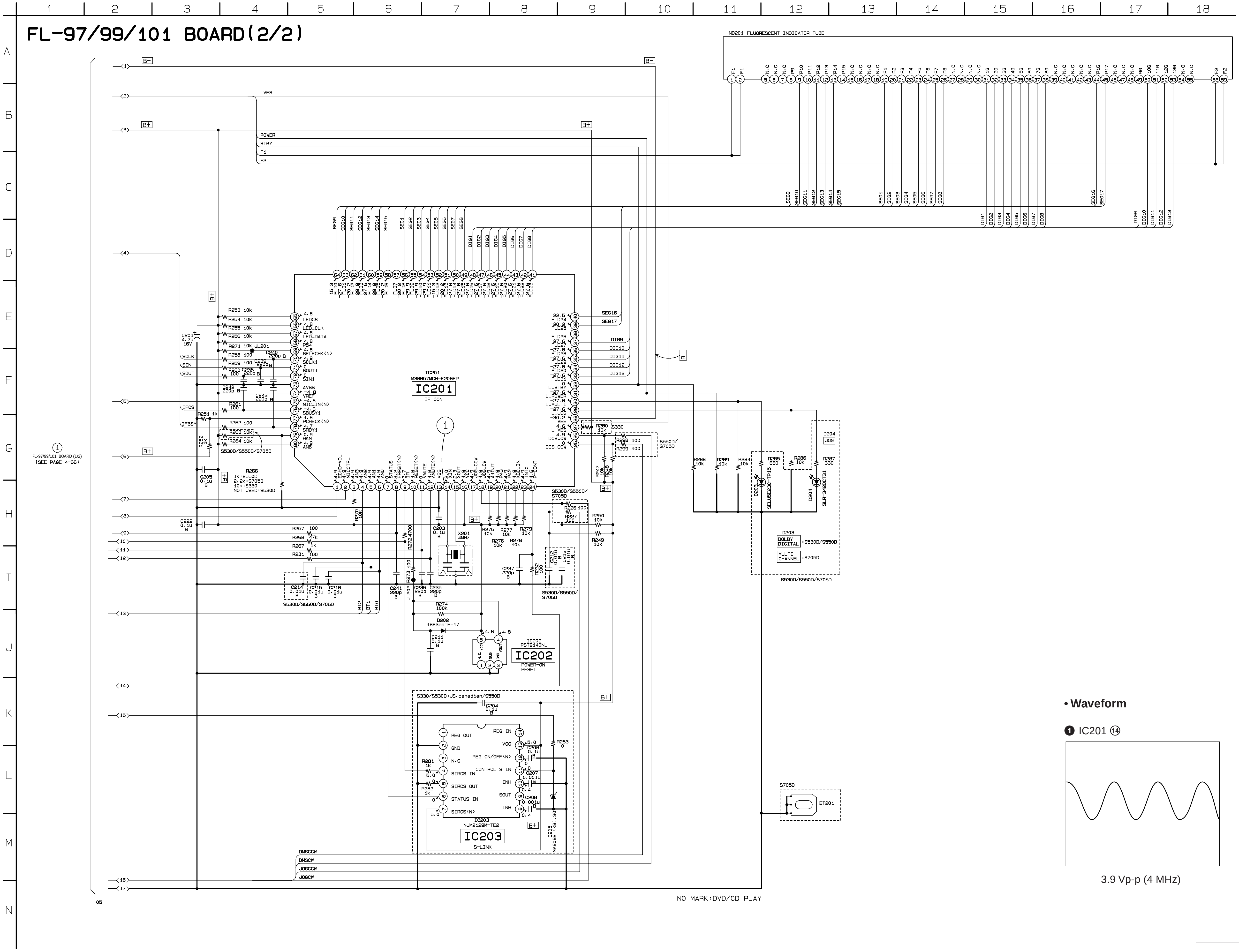
FL-97/99/101 (FUNCTION SWITCH) SCHEMATIC DIAGRAM **• See pages 4-59 and 4-61 for printed wiring board.**
– Ref. No.: FL-97/99/101 board; 2,000 series –


FL-97/99/101 BOARD(1/2)
1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
H
I
J
K
L
M
N
CN201 12P
LVES
BT25
BT11
IR
EVER5V
POWER
STBY
F1
F2
VEE
GND
PCONT
FR-146/148/150 BOARD
CN002
(SEE PAGE 4-72)
CN202 17P
XIFRST
XIFBUSY
XIFCS
SIO
SOO
SCO
GND
VMUTE
AMUTE
SLINK
A1IN
A1OUT
GND
MICCONT
+3.3V
MIC1IN
ECHOCONT
IFBSY
IFCS
SIN
SOUT
SCLK
MB-82/85 BOARD
CN006
(SEE PAGE 4-31)
JL203
JL204
JL205
JL206
JL207
JOG UNIT
ENTER
CN203 9P
JOG CCW
JOG CW
COMMON
RIGHT
KEY1
UP
ENTER
LEFT
DOWN
Q201
2SB1122-S-TD
-30V REG
-30.9
-30.2
-30.8
R229
3900
C221
0.1u
B
D207
MA8062-H-TX
D206
MA8330-L-TX
C223
22u
50V
R230
10k
C219
0.1u
B
C220
0.1u
B
FB201
B−
B+
LVES
POWER
STBY
F1
F2
R243
10k
R241
10k
R244
10k
1
FL-97/99/101 BOARD (2/2)
(SEE PAGE 4-67)
R201
10k
BT0
R211
10k
BT1
R221
10k
BT2
S201
S202
R202
1500
R203
1800
R204
2700
R205
3300
R206
4700
R207
8200
S530D/S550D
/S705D
JOG
S208
R208
15k
R209
56k
S550D/S705D
S212
OPEN/CLOSE
S213
S214
S215
S216
S217
S218
TITLE
DVD
MENU
RETURN
R212
1500
R213
1800
R214
2700
R215
3300
R216
4700
R217
8200
R218
15k
S330/S530D
S217
PREV
S218
NEXT
S530D/S550D/S705D
S221
REPEAT
CLEAR
PROGRAM
SHUFFLE
S222
S223
S224
R222
1500
R223
1800
R224
2700
R225
3300
S550D/S705D
S217
SEARCH
S218
SEARCH
S550D/S705D
S230
PREV
NEXT
PUSH
C210
0.01u
B
C209
0.01u
B
DMSCCW
DMSCW
JOGCCW
JOGCW
05
NO MARK:DVD/CD PLAY

FUNCTION SWITCH
FL-97/99/101 (1/2)

FL-97/99/101 (IF CON) SCHEMATIC DIAGRAM **• See pages 4-59 and 4-61 for printed wiring board.**

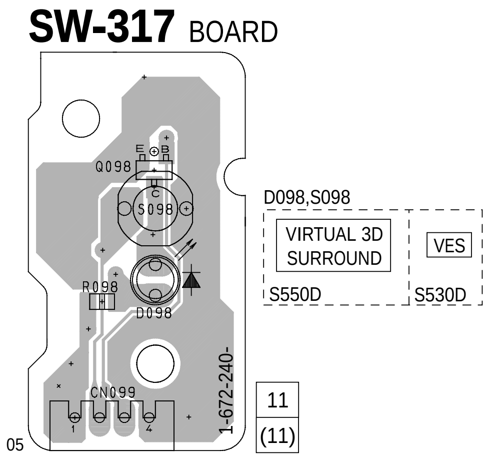
– Ref. No.: FL-97/99/101 board; 2,000 series –


FL-97/99/101 BOARD(2/2)
ND201 FLUORESCENT INDICATOR TUBE
LVES
POWER
STBY
F1
F2
B+
B−
IC201
M38857MCH-E206FP
IC201
IF CON
IC202
PST9140NL
IC202
POWER-ON RESET
IC203
NJM2129M-TE2
IC203
S-LINK
X201
4MHz
D202
1SS355TE-17
D203
DOLBY DIGITAL :S530D/S550D
MULTI CHANNEL :S705D
D204
JOG
SEL6E23C-TP15
SLR-342DC131
S330/S530D:US,canadian/S550D
S530D/S550D/S705D
S705D
ET201
DMSCCW
DMSCW
JOGCCW
JOGCW
SCLK
SIN
SOUT
IFCS
IFBSY
FL-97/99/101 BOARD (1/2) (SEE PAGE 4-66)
NO MARK:DVD/CD PLAY
05
• Waveform
❶ IC201 ⑭
3.9 Vp-p (4 MHz)

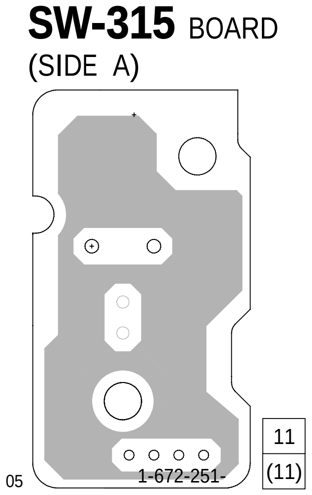
SW-315/317 (SURROUND SWITCH), FR-146/148/150 (IR/POWER SWITCH) PRINTED WIRING BOARDS

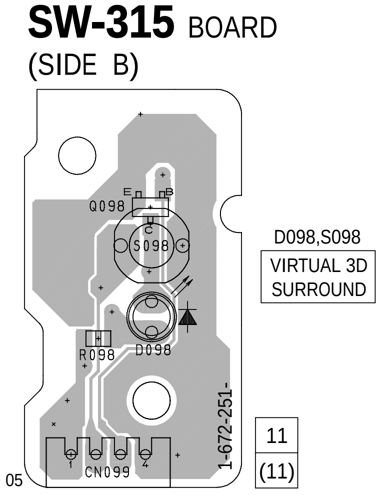
– Ref. No.: SW-315/317 board and FR-146/148/150 board; 4,000 series –

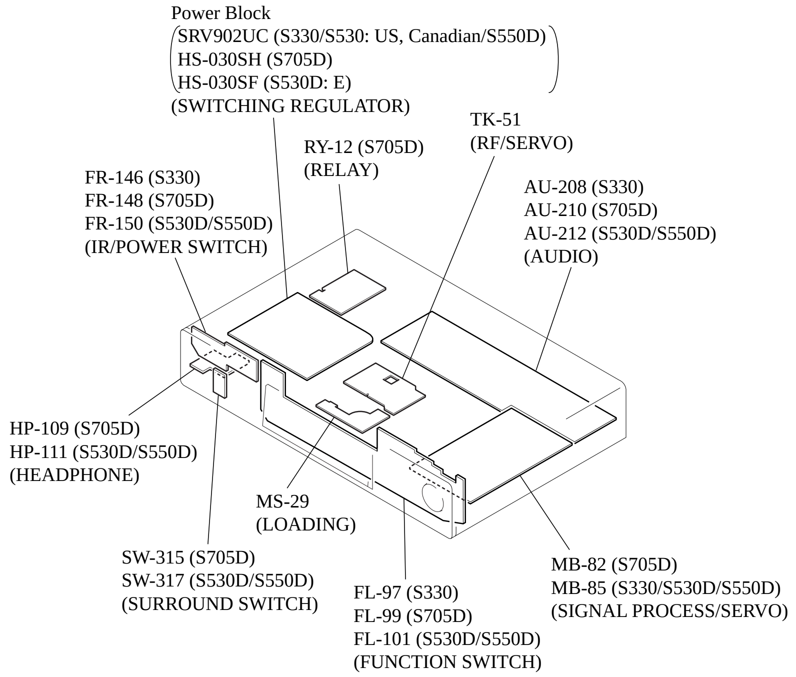
– DVP-S530D/S550D –


SW-317 BOARD
Q098
S098
R098
D098
CN099
1-672-240-
D098,S098
VIRTUAL 3D SURROUND
VES
S550D
S530D
11
(11)
05

– DVP-S705D –


SW-315 BOARD
(SIDE A)
1-672-251-
11
(11)
05


SW-315 BOARD
(SIDE B)
Q098
S098
R098
D098
CN099
1-672-251-
D098,S098
VIRTUAL 3D SURROUND
11
(11)
05

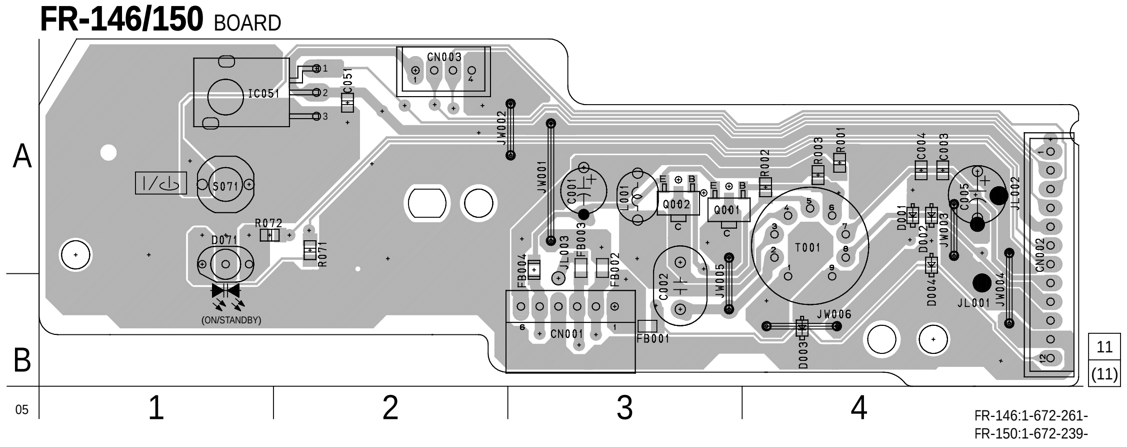

Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)
TK-51
(RF/SERVO)
RY-12 (S705D)
(RELAY)
FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)
AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)
HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)
MS-29
(LOADING)
SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)
FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)
MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

There are few cases that the part isn't mounted in this model is printed on this diagram.

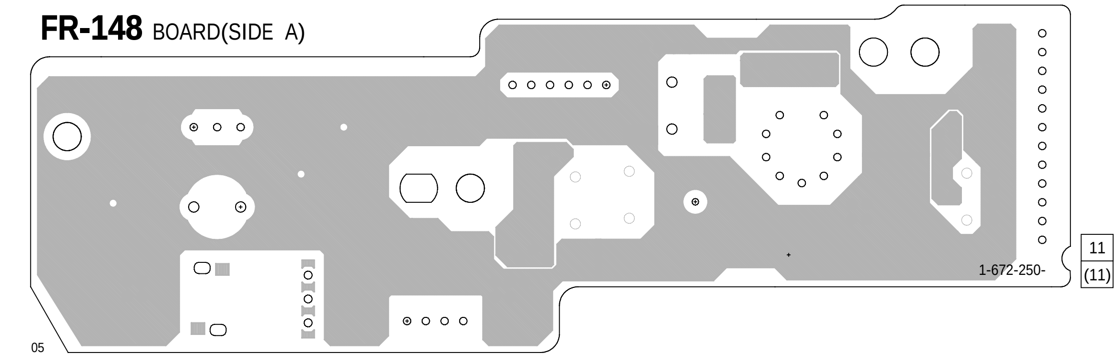
– DVP-S330/S530D/S550D –

FR-146/150 BOARD

CN001	B-3
CN002	A-5
CN003	A-2
D001	A-4
D002	A-4
D003	B-4
D004	A-4
D071	A-1
IC051	A-1
Q001	A-3
Q002	A-3

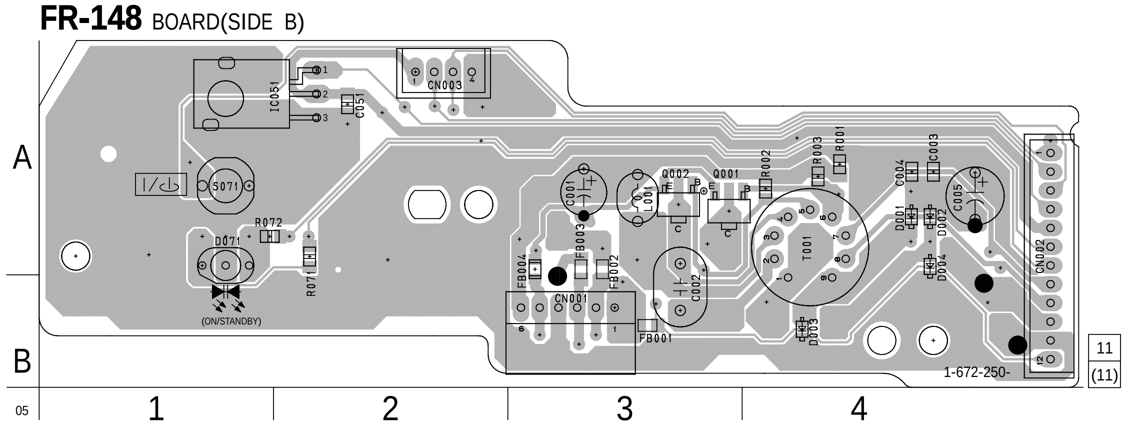

FR-146/150 BOARD
A
B
1
2
3
4
IC051
C051
CN003
JW002
S071
R072
D071
R071
(ON/STANDBY)
JW001
FB004
FB003
FB002
C001
L001
Q002
Q001
R002
R003
R001
C004
C003
T001
D001
D002
C005
JL002
CN002
C002
CN001
FB001
JW005
JW006
D003
D004
JL001
JW004
11
(11)
05
FR-146:1-672-261-
FR-150:1-672-239-

– DVP-S705D –


FR-148 BOARD(SIDE A)
1-672-250-
11
(11)
05

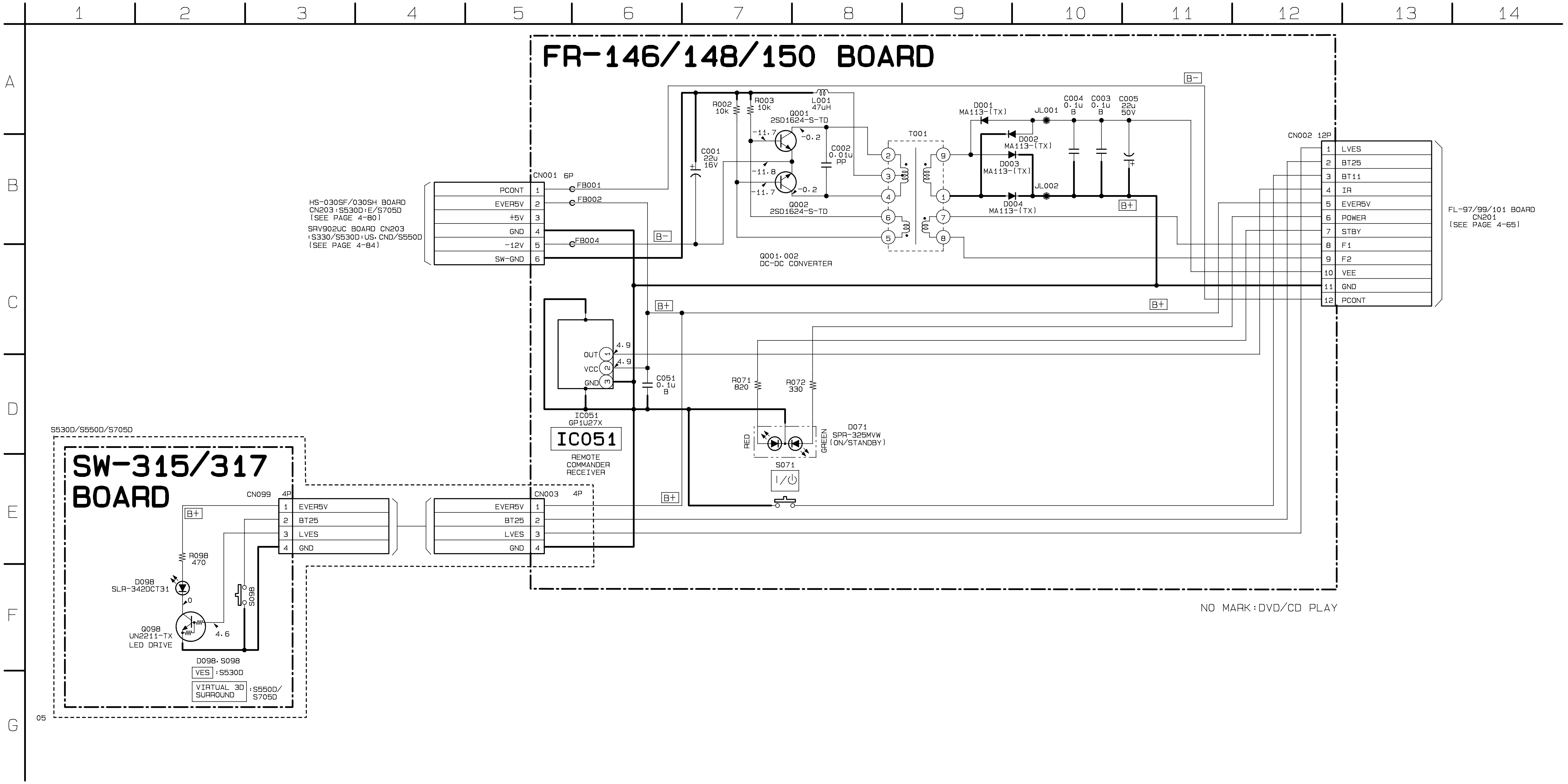
FR-148 BOARD (SIDE B)

CN001	B-3
CN002	A-5
CN003	A-2
D001	A-4
D002	A-4
D003	B-4
D004	A-4
D071	A-1
IC051	A-1
Q001	A-3
Q002	A-3


FR-148 BOARD(SIDE B)
A
B
1
2
3
4
IC051
C051
CN003
S071
R072
D071
R071
(ON/STANDBY)
FB004
FB003
FB002
C001
L001
Q002
Q001
R002
R003
R001
C004
C003
C005
T001
D001
D002
D004
CN002
C002
CN001
FB001
D003
1-672-250-
11
(11)
05

SW-315/317 (SURROUND SWITCH), FR-146/148/150 (IR/POWER SWITCH) SCHEMATIC DIAGRAM

– Ref. No.: SW-315/317 board and FR-146/148/150 board; 4,000 series –


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
FR-146/148/150 BOARD
B–
R002 10k
R003 10k
L001 47uH
Q001 2SD1624-S-TD
-11.7
-0.2
-11.8
-11.7
-0.2
Q002 2SD1624-S-TD
C001 22u 16V
C002 0.01u PP
T001
D001 MA113-(TX)
D002 MA113-(TX)
D003 MA113-(TX)
D004 MA113-(TX)
JL001
JL002
C004 0.1u B
C003 0.1u B
C005 22u 50V
B+
Q001, 002 DC-DC CONVERTER
CN001 6P
1 PCONT
2 EVER5V
3 +5V
4 GND
5 -12V
6 SW-GND
FB001
FB002
FB004
HS-030SF/030SH BOARD
CN203 : S530D : E/S705D
(SEE PAGE 4-80)
SRV902UC BOARD CN203
: S330/S530D : US, CND/S550D
(SEE PAGE 4-84)
CN002 12P
1 LVES
2 BT25
3 BT11
4 IR
5 EVER5V
6 POWER
7 STBY
8 F1
9 F2
10 VEE
11 GND
12 PCONT
FL-97/99/101 BOARD
CN201
(SEE PAGE 4-65)
OUT 1
VCC 2
GND 3
4.9
4.9
C051 0.1u B
IC051 GP1U27X
IC051
REMOTE COMMANDER RECEIVER
R071 820
R072 330
RED
GREEN
D071 SPR-325MVW (ON/STANDBY)
S071
I/⏻
CN003 4P
1 EVER5V
2 BT25
3 LVES
4 GND
S530D/S550D/S705D
SW-315/317 BOARD
CN099 4P
1 EVER5V
2 BT25
3 LVES
4 GND
R098 470
D098 SLR-342DCT31
0
S098
Q098 UN2211-TX LED DRIVE
4.6
D098, S098
VES : S530D
VIRTUAL 3D SURROUND : S550D/S705D
05
NO MARK : DVD/CD PLAY

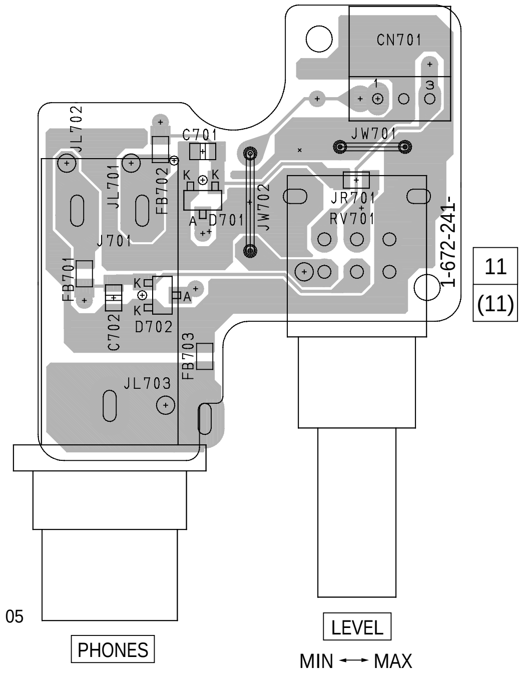
HP-109/111 (HEADPHONE) PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAM

– Ref. No.: HP-109/111 board; 2,000 series –

There are few cases that the part isn't mounted in this model is printed on this diagram.

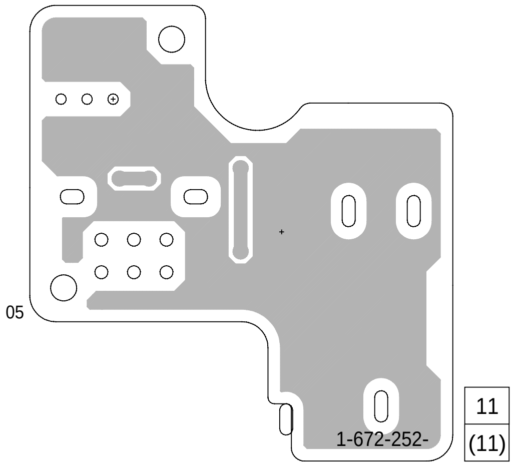
– DVP-S530D/S550D –

HP-111 BOARD

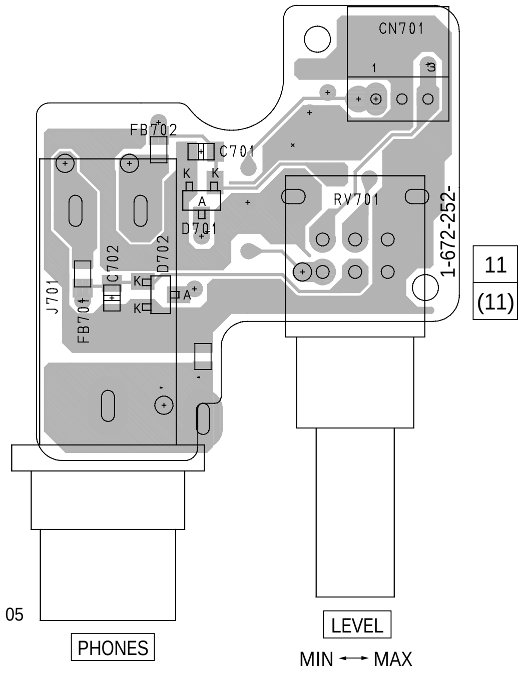

CN701
C701
JW701
JL702
JL701
FB702
D701
JW702
JR701
RV701
J701
FB701
C702
D702
FB703
JL703
1-672-241-
11
(11)
05
PHONES
LEVEL
MIN ⟷ MAX

– DVP-S705D –

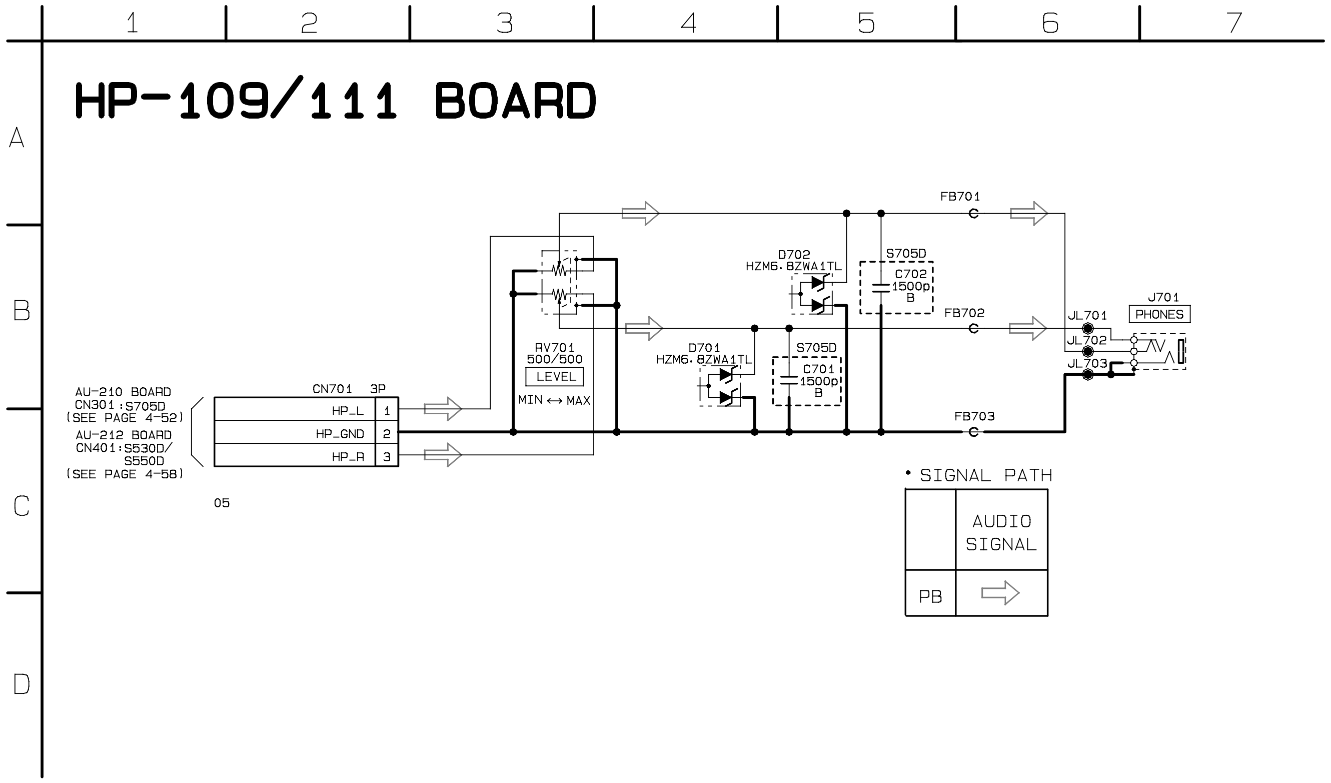
HP-109 BOARD(SIDE A)

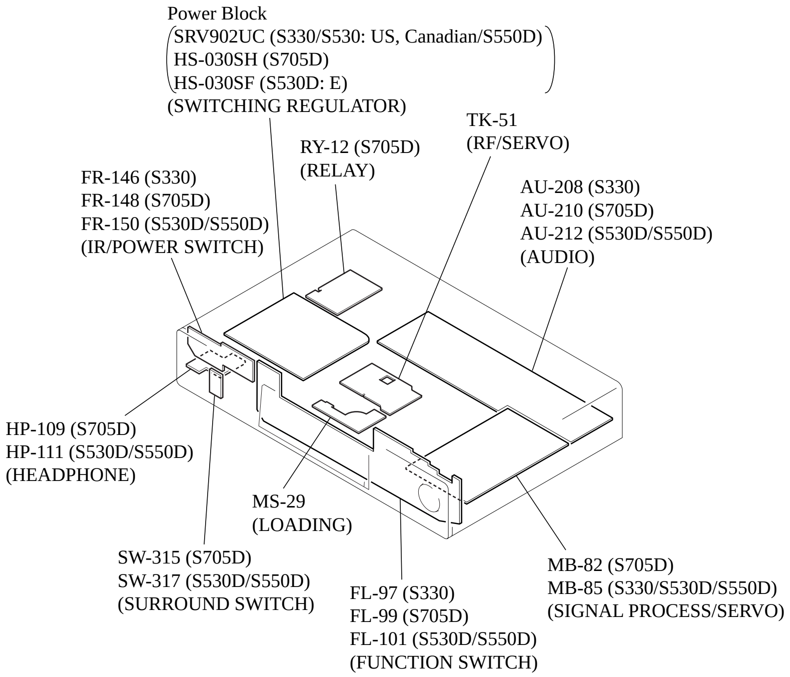

05
1-672-252-
11
(11)

HP-109 BOARD(SIDE B)


CN701
1
3
FB702
C701
D701
RV701
J701
FB701
C702
D702
1-672-252-
11
(11)
05
PHONES
LEVEL
MIN ⟷ MAX

– DVP-S530D/S550D/S705D –


1
2
3
4
5
6
7
A
B
C
D
HP-109/111 BOARD
FB701
D702
HZM6.8ZWA1TL
S705D
C702
1500p
B
J701
PHONES
FB702
JL701
JL702
JL703
D701
HZM6.8ZWA1TL
S705D
C701
1500p
B
RV701
500/500
LEVEL
MIN ⟷ MAX
AU-210 BOARD
CN301:S705D
(SEE PAGE 4-52)
AU-212 BOARD
CN401:S530D/
S550D
(SEE PAGE 4-58)
CN701 3P
HP_L 1
HP_GND 2
HP_R 3
FB703
05
• SIGNAL PATH
AUDIO
SIGNAL
PB


Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)
TK-51
(RF/SERVO)
RY-12 (S705D)
(RELAY)
FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)
AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)
HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)
MS-29
(LOADING)
SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)
FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)
MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

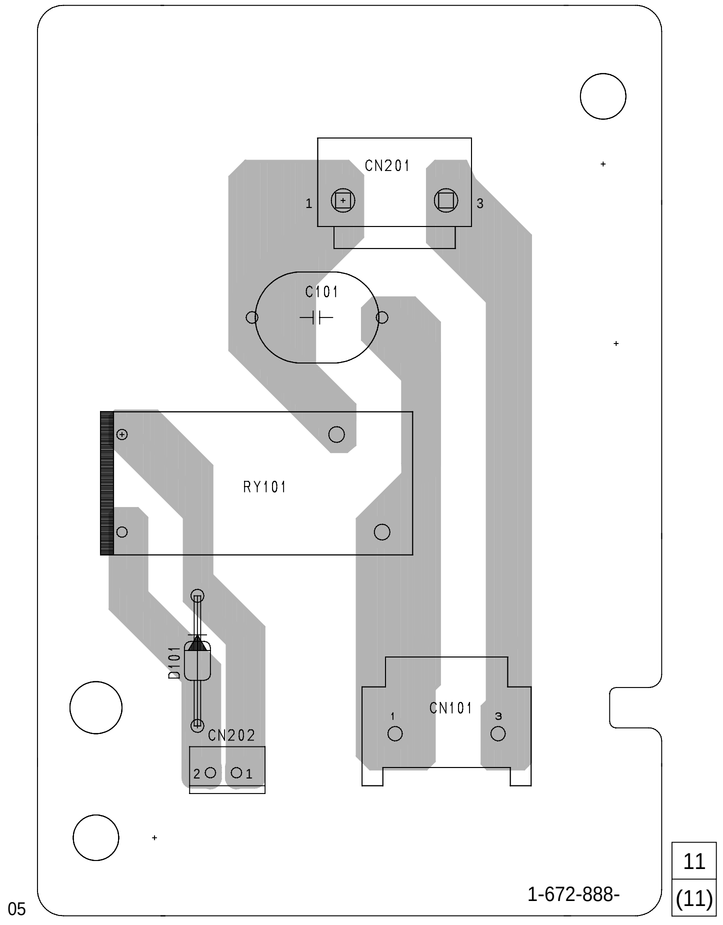
RY-12 (RELAY) PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM

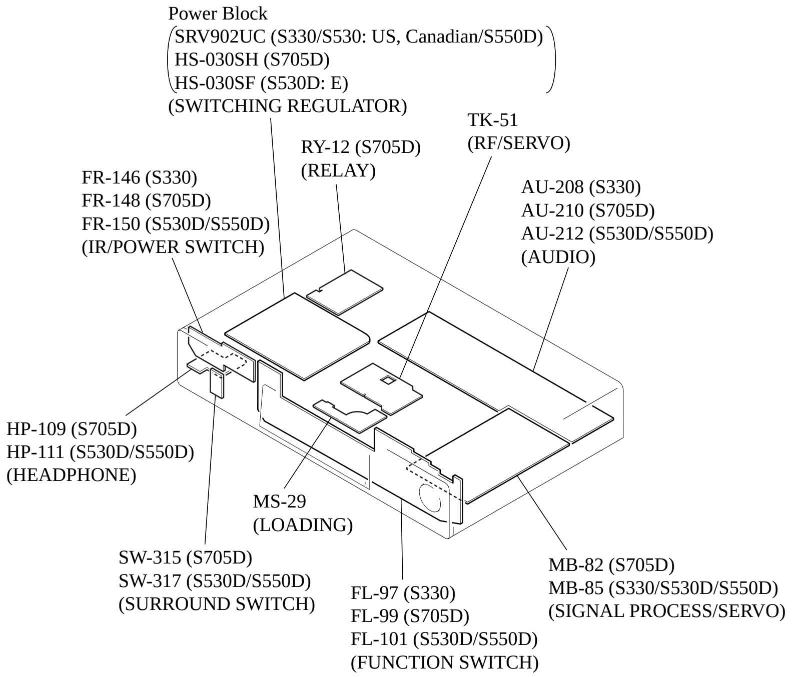
– Ref. No.: RY-12 board; 2,000 series –

There are few cases that the part isn't mounted in this model is printed on this diagram.

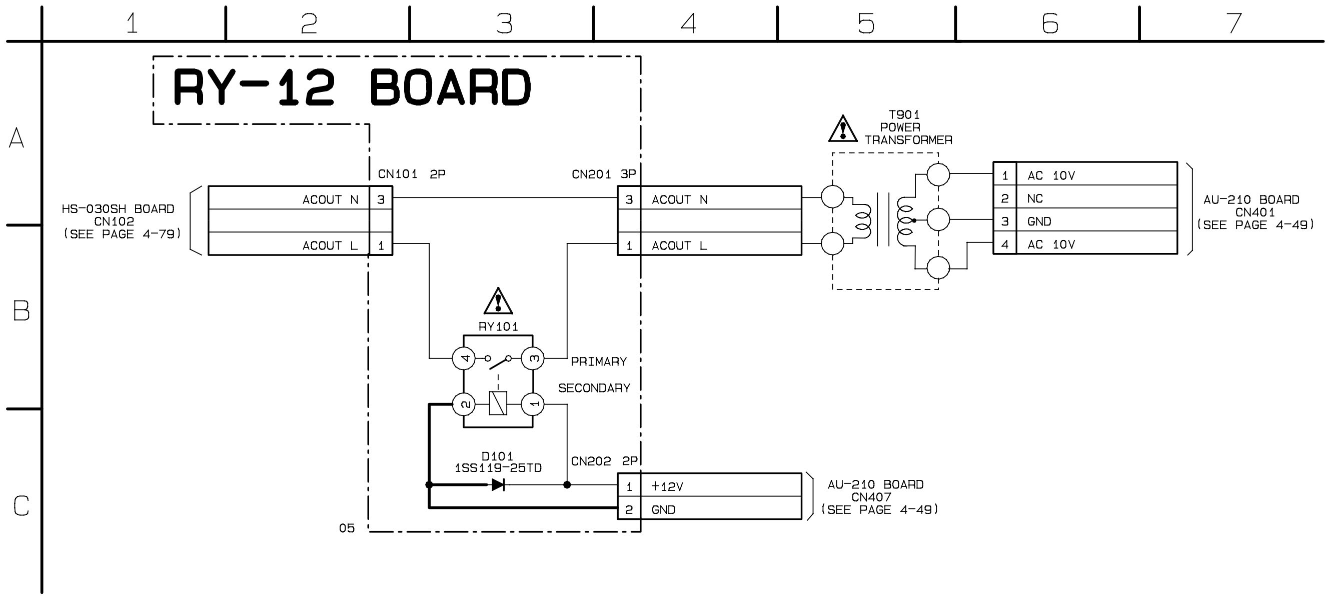
– DVP-S705D –

RY-12 BOARD


CN201
1
3
C101
RY101
D101
CN202
2
1
CN101
1
3
11
(11)
1-672-888-
05


Power Block
SRV902UC (S330/S530: US, Canadian/S550D)
HS-030SH (S705D)
HS-030SF (S530D: E)
(SWITCHING REGULATOR)
TK-51
(RF/SERVO)
RY-12 (S705D)
(RELAY)
FR-146 (S330)
FR-148 (S705D)
FR-150 (S530D/S550D)
(IR/POWER SWITCH)
AU-208 (S330)
AU-210 (S705D)
AU-212 (S530D/S550D)
(AUDIO)
HP-109 (S705D)
HP-111 (S530D/S550D)
(HEADPHONE)
MS-29
(LOADING)
SW-315 (S705D)
SW-317 (S530D/S550D)
(SURROUND SWITCH)
FL-97 (S330)
FL-99 (S705D)
FL-101 (S530D/S550D)
(FUNCTION SWITCH)
MB-82 (S705D)
MB-85 (S330/S530D/S550D)
(SIGNAL PROCESS/SERVO)

– DVP-S705D –

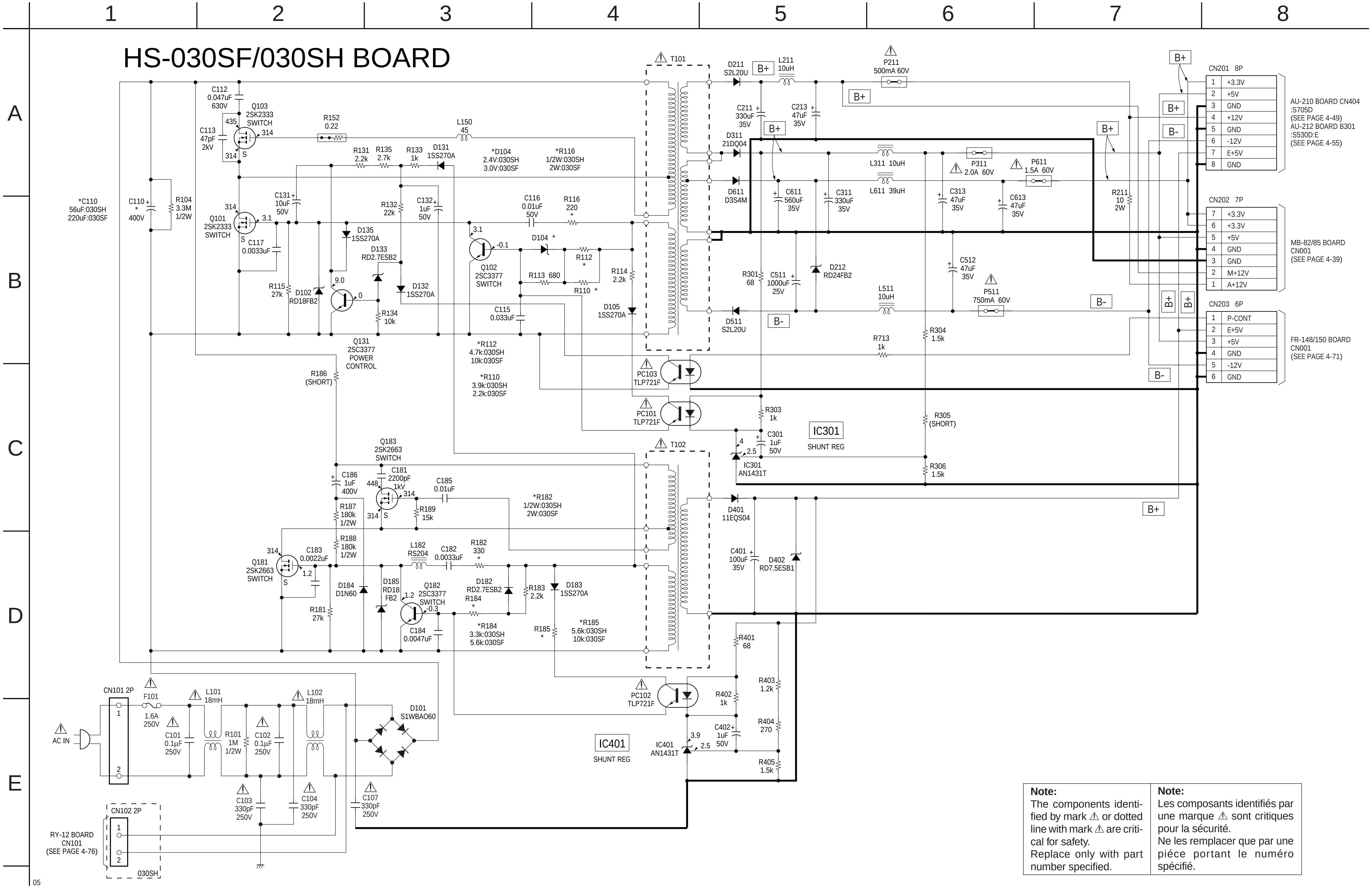

1
2
3
4
5
6
7
A
B
C
RY-12 BOARD
HS-030SH BOARD
CN102
(SEE PAGE 4-79)
CN101 2P
ACOUT N 3
ACOUT L 1
CN201 3P
3 ACOUT N
1 ACOUT L
T901
POWER
TRANSFORMER
1 AC 10V
2 NC
3 GND
4 AC 10V
AU-210 BOARD
CN401
(SEE PAGE 4-49)
RY101
4
3
2
1
PRIMARY
SECONDARY
D101
1SS119-25TD
CN202 2P
1 +12V
2 GND
AU-210 BOARD
CN407
(SEE PAGE 4-49)
05

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

HS-030SF/030SH (SWITCHING REGULATOR) SCHEMATIC DIAGRAM

– Ref. No.: HS-030SF/030SH board; 6,000 series –

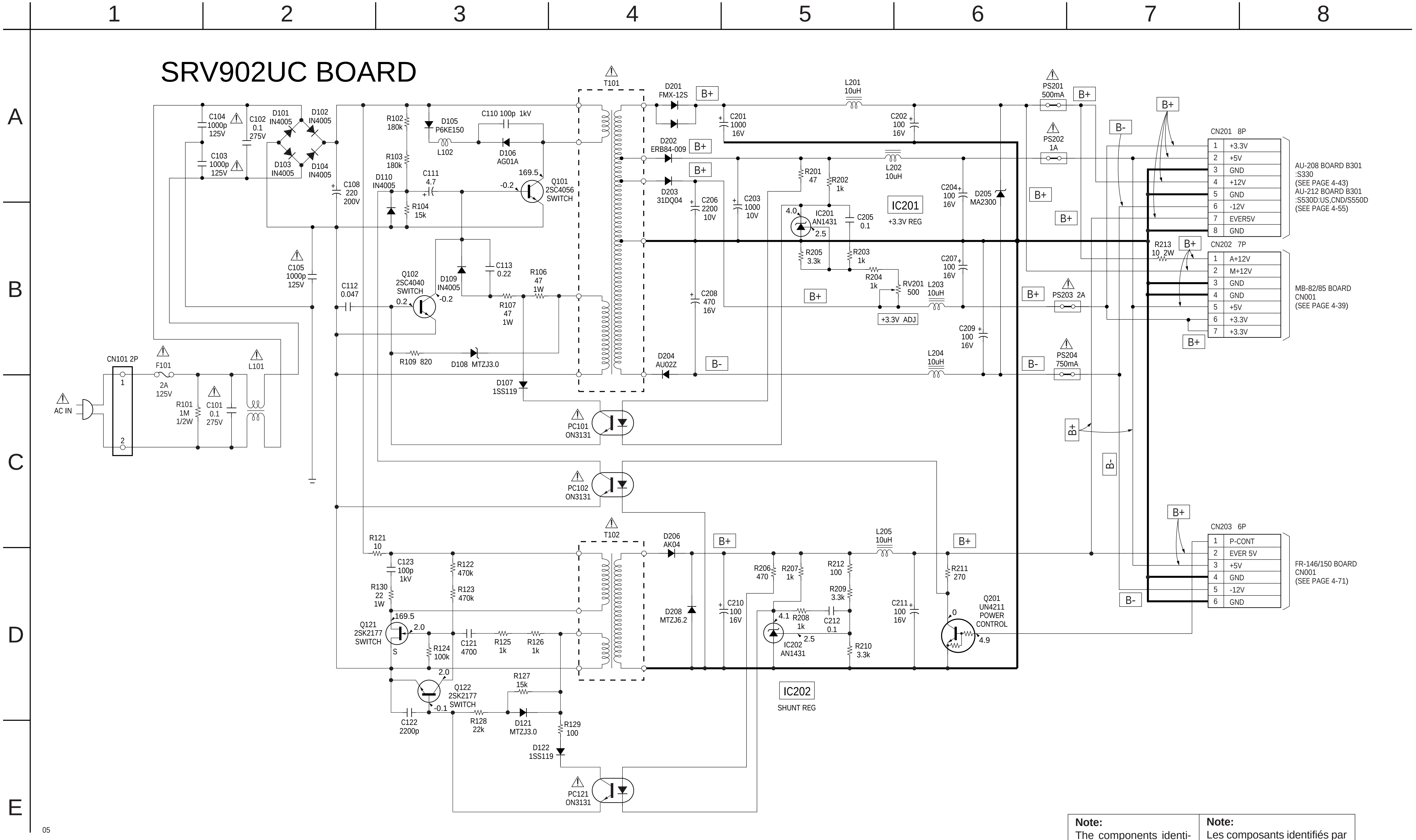
– DVP-S530D: E/S705D –


1
2
3
4
5
6
7
8
A
B
C
D
E
HS-030SF/030SH BOARD
T101
T102
D211 S2L20U
L211 10uH
P211 500mA 60V
B+
B-
C112 0.047uF 630V
Q103 2SK2333 SWITCH
C113 47pF 2kV
R152 0.22
L150 45
R131 2.2k
R135 2.7k
R133 1k
D131 1SS270A
*D104 2.4V:030SH 3.0V:030SF
*R116 1/2W:030SH 2W:030SF
C211 330uF 35V
C213 47uF 35V
D311 21DQ04
L311 10uH
P311 2.0A 60V
P611 1.5A 60V
L611 39uH
D611 D3S4M
C611 560uF 35V
C311 330uF 35V
C313 47uF 35V
C613 47uF 35V
R211 10 2W
*C110 56uF:030SH 220uF:030SF
C110 * 400V
R104 3.3M 1/2W
Q101 2SK2333 SWITCH
C131 10uF 50V
C117 0.0033uF
R132 22k
C132 1uF 50V
C116 0.01uF 50V
R116 220 *
D135 1SS270A
D133 RD2.7ESB2
D104 *
R112 *
Q102 2SC3377 SWITCH
R113 680
R110 *
R114 2.2k
R115 27k
D102 RD18FB2
D132 1SS270A
R134 10k
C115 0.033uF
D105 1SS270A
Q131 2SC3377 POWER CONTROL
*R112 4.7k:030SH 10k:030SF
*R110 3.9k:030SH 2.2k:030SF
R186 (SHORT)
R301 68
C511 1000uF 25V
D212 RD24FB2
C512 47uF 35V
L511 10uH
P511 750mA 60V
D511 S2L20U
R713 1k
R304 1.5k
PC103 TLP721F
PC101 TLP721F
R303 1k
C301 1uF 50V
IC301 SHUNT REG
IC301 AN1431T
R305 (SHORT)
R306 1.5k
CN201 8P
+3.3V
+5V
GND
+12V
-12V
E+5V
AU-210 BOARD CN404 :S705D (SEE PAGE 4-49)
AU-212 BOARD B301 :S530D:E (SEE PAGE 4-55)
CN202 7P
M+12V
A+12V
MB-82/85 BOARD CN001 (SEE PAGE 4-39)
CN203 6P
P-CONT
FR-148/150 BOARD CN001 (SEE PAGE 4-71)
Q183 2SK2663 SWITCH
C186 1uF 400V
C181 2200pF 1kV
C185 0.01uF
*R182 1/2W:030SH 2W:030SF
R187 180k 1/2W
R189 15k
R188 180k 1/2W
Q181 2SK2663 SWITCH
C183 0.0022uF
L182 RS204
C182 0.0033uF
R182 330 *
D184 D1N60
D185 RD18 FB2
Q182 2SC3377 SWITCH
D182 RD2.7ESB2
R184 *
R183 2.2k
D183 1SS270A
R181 27k
C184 0.0047uF
*R184 3.3k:030SH 5.6k:030SF
R185 *
*R185 5.6k:030SH 10k:030SF
D401 11EQS04
C401 100uF 35V
D402 RD7.5ESB1
R401 68
R403 1.2k
PC102 TLP721F
R402 1k
C402 1uF 50V
R404 270
IC401 AN1431T
IC401 SHUNT REG
R405 1.5k
CN101 2P
F101 1.6A 250V
L101 18mH
L102 18mH
D101 S1WBA060
AC IN
C101 0.1µF 250V
R101 1M 1/2W
C102 0.1µF 250V
C103 330pF 250V
C104 330pF 250V
C107 330pF 250V
CN102 2P
RY-12 BOARD CN101 (SEE PAGE 4-76)
030SH
05

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

SRV902UC (SWITCHING REGULATOR) SCHEMATIC DIAGRAM
– Ref. No.: SRV902UC board; 7,000 series –
– DVP-S330/S530D: US, CND/S550D –


1
2
3
4
5
6
7
8
A
B
C
D
E
SRV902UC BOARD
CN101 2P
AC IN
F101 2A 125V
R101 1M 1/2W
C101 0.1 275V
L101
C104 1000p 125V
C103 1000p 125V
C102 0.1 275V
D101 IN4005
D102 IN4005
D103 IN4005
D104 IN4005
C105 1000p 125V
C108 220 200V
C112 0.047
R102 180k
R103 180k
D105 P6KE150
L102
C110 100p 1kV
D106 AG01A
D110 IN4005
C111 4.7
R104 15k
169.5
-0.2
Q101 2SC4056 SWITCH
Q102 2SC4040 SWITCH
0.2
-0.2
D109 IN4005
C113 0.22
R106 47 1W
R107 47 1W
R109 820
D108 MTZJ3.0
D107 1SS119
T101
PC101 ON3131
PC102 ON3131
D201 FMX-12S
D202 ERB84-009
D203 31DQ04
D204 AU02Z
B+
B-
C201 1000 16V
C206 2200 10V
C203 1000 10V
C208 470 16V
L201 10uH
C202 100 16V
L202 10uH
R201 47
R202 1k
IC201 AN1431
4.0
2.5
C205 0.1
IC201
+3.3V REG
R205 3.3k
R203 1k
R204 1k
RV201 500
+3.3V ADJ
C204 100 16V
D205 MA2300
C207 100 16V
L203 10uH
C209 100 16V
L204 10uH
PS201 500mA
PS202 1A
PS203 2A
PS204 750mA
R213 10 2W
CN201 8P
1 +3.3V
2 +5V
3 GND
4 +12V
5 GND
6 -12V
7 EVER5V
8 GND
AU-208 BOARD B301 :S330 (SEE PAGE 4-43)
AU-212 BOARD B301 :S530D:US,CND/S550D (SEE PAGE 4-55)
CN202 7P
1 A+12V
2 M+12V
3 GND
4 GND
5 +5V
6 +3.3V
7 +3.3V
MB-82/85 BOARD CN001 (SEE PAGE 4-39)
R121 10
C123 100p 1kV
R130 22 1W
R122 470k
R123 470k
Q121 2SK2177 SWITCH
169.5
2.0
S
R124 100k
C121 4700
R125 1k
R126 1k
2.0
Q122 2SK2177 SWITCH
-0.1
C122 2200p
R128 22k
R127 15k
D121 MTZJ3.0
R129 100
D122 1SS119
PC121 ON3131
T102
D206 AK04
D208 MTZJ6.2
C210 100 16V
R206 470
R207 1k
R208 1k
4.1
2.5
IC202 AN1431
C212 0.1
R212 100
R209 3.3k
R210 3.3k
L205 10uH
C211 100 16V
R211 270
Q201 UN4211 POWER CONTROL
0
4.9
IC202
SHUNT REG
CN203 6P
1 P-CONT
2 EVER 5V
3 +5V
4 GND
5 -12V
6 GND
FR-146/150 BOARD CN001 (SEE PAGE 4-71)
05

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

SWITCHING REGULATOR
SRV902UC

SECTION 5
IC PIN FUNCTION DESCRIPTION

5-1. SYSTEM CONTROL PIN FUNCTION (MB-82/85 BOARD IC202)

Pin No.	Pin name	I/O	Function
1	PB5	O	Analog filter gain control
2	PB6	O	VES gain control “H”: VES
3	PB7	O	Rear CH boost control “H”: rear boost
4	VCC3	-	Power supply
5	CLK	O	CPU clock out (25 MHz)
6	$\overline{\text{CS5}}$	O	Not used
7	$\overline{\text{CS4}}$	O	Chip select signal for ARP, SERVO DSP and HGA
8	$\overline{\text{CS3}}$	O	Chip select signal for SDRAM and AV DEC
9	$\overline{\text{CS2}}$	O	Chip select signal for REG and AV DEC
10	$\overline{\text{CS1}}$	O	Chip select signal for external SRAM
11	$\overline{\text{CS0}}$	O	Chip select signal for external FLASH ROM
12	$\overline{\text{NMI}}$	I	Not used (fixed at “H”)
13	$\overline{\text{HST}}$	I	Not used (fixed at “H”)
14	$\overline{\text{RST}}$	I	Reset signal input from IF CON
15	GND	-	Ground
16	MD0	I	Input of mode select 0 (fixed at “1”)
17	MD1	I	Input of mode select 1 (fixed at “0”)
18	MD2	I	Input of mode select 2 (fixed at “0”)
19	RDY	I	Wait signal input
20	P81	I	Test terminal (fixed at “H”)
21	P82	I	Test terminal (fixed at “L”)
22	$\overline{\text{RD}}$	O	Read enable signal output
23	$\overline{\text{WR0}}$	O	High byte write enable signal output (16 bit and 8 bit)
24	$\overline{\text{WR1}}$	O	Low byte write enable signal output (16 bit only)
25-32	D16-D23	I/O	Data bus D0-D7 (16 bit)
33-39	D24-D30	I/O	Data bus D8-D14 (16 bit), D0-D6 (8 bit)
40	GND	-	Ground
41	D31	I/O	Data bus D15 (16 bit), D7 (8 bit)
42	A00	O	Address bus A0
43	VCC5	-	Power supply
44-64	A01-A21	O	Address bus A1-A21
65	GND	-	Ground
66	P66	O	PLL IC control output “H”: DOUBLE
67	P67	I	DIAG mode signal input “L”: DIAG
68	EOP0	I	Not used
69	AVCC	-	Power supply
70	AVRH	-	Reference power supply (+3.3V)
71	AGND	-	Ground
72	AN0	I	Set of mode 0
73	AN1	I	Set of mode 1
74	AN2	I	Set of mode 2
75	AN3	I	Set of mode 3 (fixed at “H”)
76	SI0	I	Serial data input from IF CON and EEPROM
77	SO0	O	Serial data output to IF CON and EEPROM
78	SC0	O	Serial clock output to IF CON and EEPROM
79	SI1	I	Serial bus 1 (for data input)
80	SO1	O	Serial bus 1 (for data output)
81	SI2	I	Serial bus 2 (for data input)
82	SO2	O	Serial bus 2 (for data output)
83	PF7	O	Reset signal output
84	DACK1	O	Output of DMA-ACK 0 to AV DEC
85	DACK0	O	Output of DMA-ACK 1 to AV DEC
86	DREQ1	I	Input of DMA-REQ 0 from AV DEC
87	DREQ0	I	Input of DMA-REQ 1 from AV DEC
88	INT3	I	Input of interrupt from HGA
89	SC1	O	Serial clock output
90	GND	-	Ground
91	X1	O	Clock output (12.5MHz)
92	X0	I	Clock input (12.5MHz)
93	VCC5	-	Power supply
94	INT1	I	Input of interrupt ARP and SERVO DSP
95	INT0	I	Input of interrupt from AV DEC
96	PB0	I	Rear panel lime input select (“H”: DISC “L”: EXT)
97	PB1	O	Chip select signal to IF CON
98	PB2	O	Chip select signal to DAC (Lt and Rt)
99	PB3	O	Chip select signal to DAC (L and R)
100	PB4	O	DVD/CD select (“H”: 44.1kHz “L”: 48kHz)

SECTION 6
TEST MODE

6-1. GENERAL DESCRIPTION

The Test Mode allows you to make diagnosis and adjustment easily using the remote commander and monitor TV. The instructions, diagnostic results, etc. are given on the on-screen display (OSD).

6-2. STARTING TEST MODE

Press TITLE, CLEAR, POWER buttons on the remote commander in this order with the power of main unit in OFF status, and the Test Mode starts, then the menu shown below will be displayed on the TV screen. At the bottom of menu screen, the model name and revision number are displayed.
To execute each function, select the desired menu and press its number on the remote commander.
To exit from the Test Mode, press the POWER button.

```
Test Mode Menu

0. Syscon Diagnosis
1. Drive Auto Adjustment
2. Drive Manual Operation
3. Mecha Aging
4. Emergency History
5. Version Information
6. Video Level Adjustment
Exit: Power Key
_
Model    : DPX12xxxx
Revision: 1.000
```

6-3. SYSCON DIAGNOSIS

The same contents as board detail check by serial interface can be checked from the remote commander.
On the Test Mode Menu screen, press 0 key on the remote commander, and the following check menu will be displayed.

```
    ### Syscon Diagnosis ###
           Check Menu
0. Quit
1. All
2. Version
3. Peripheral
4. Servo
5. Supply
6. AV Decoder
7. Video
8. Audio
_
```

0. Quit

Quit the Syscon Diagnosis and return to the Test Mode Menu.

1. All

All items continuous check
This menu checks all diagnostic items continuously. Normally, all items are checked successively one after another automatically unless an error is found, but at a certain item that requires judgment through a visual check to the result, the following screen is displayed for the key entry.

```
    ### Syscon Diagnosis ###

Diag All Check
No. 2 Version

 2-3. ROM Check Sum
Check Sum = 2005




Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

For the ROM Check, the check sum calculated by the Syscon is output, and therefore you must compare it with the specified value for confirmation.
Following the message, press NEXT key to go to the next item, or PREV key to repeat the same check again. To quit the diagnosis and return to the Check Menu screen, press STOP or ENTER key. If an error occurred, the diagnosis is suspended and the error code is displayed as shown below.

```
    ### Syscon Diagnosis ###




 3-3. EEPROM Check
Error 03: EEPROM Write/Reed N
Address    : 00000001
Write Data : 2492
Read Data  : 2490
Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

Press STOP key to quit the diagnosis, or PREV key to repeat the same item where an error occurred, or NEXT key to continue the check from the item next to faulty item.

Selecting 2 and subsequent items calls the submenu screen of each item.
For example, if “5. Supply” is selected, the following submenu will be displayed.

```
    ### Syscon Diagnosis ###
           Check Menu
          No. 5 Supply
0. Quit
1. All
2. ARP Register Check
3. ARP to RAM Data Bus
4. ARP to RAM Address Bus
5. ARP RAM Check
_
```

0. Quit

Quit the submenu and return to the main menu.

1. All

All submenu items continuous check
This menu checks 2 and subsequent items successively. At the item where visual check is required for judgment or an error occurred, the checking is suspended and the message is output for key entry. Normally, all items are checked successively one after another automatically unless an error is found.

Selecting 2 and subsequent items executes respective menus and outputs the results.
For the contents of each submenu, see “Check Items List”.

General Description of Checking Method

2. Version

(2-2) Revision
ROM revision number is displayed.
Error: Not detected.
The revision number defined in the source file of ROM (IC205) is displayed with four digits.

(2-3) ROM Check Sum
Check sum is calculated.
Error: Not detected.
The 8-bit data are added at addresses 0x000F0000 ~ 0x002EFFFF of ROM (IC205) and the result is displayed with 4-digit hexadecimal number. Error is not detected. Compare the result with the specified value.

(2-4) Model Type
Model code is displayed.
Error: Not detected.
The model code read from EEPROM (IC201) is displayed with 2-digit hexadecimal number.

	Model Type	
DVP-S330 (US, Canadian)	0	0
DVP-S530D (US, Canadian)	2	0
DVP-S530D (E)	2	2
DVP-S550D (US, Canadian)	3	0
DVP-S705D (Hong Kong, Singapore)	4	2

(2-5) Region
Region code is displayed.
Error: Not detected.
The region code determined from the model code is displayed.

3. Peripheral

(3-2) Gate Array Check
Data write → read, and accord check
Error 02: Gate array write/read discord
Data 0x00~0xFF are written to the address 0xF of GA (IC601), then read and checked if they accord.

(3-3) EEPROM Check
Data write → read, and accord check
Error 03: EEPROM write/read discord
Data 0x9249, 0x2942, 0x4294 are written to addresses 0x00~0xFF of EEPROM (IC201), then read and checked. Before writing, the data are saved, then after checking, they are written to restore the contents of EEPROM.

(3-4) NAND Flash Check
Data clear → write → read, and accord check
This check is conducted to the DVP-S550D/DVP-S705D only.
Error 04: Clear error
05: Write error
06: Read data discord
21: Faulty blocks exceed 10
The data clear, write, read, and check are executed to the block 0 of Flash memory (IC602).
In case of a faulty block, its address is displayed.
An error is output if faulty blocks exceed 10.

4. Servo

(4-2) Servo DSP Check
Data write → read, and accord check
Error 12: Read data discord
Data 0x9249, 0x2942, 0x4294 are written to the address 0x602 of RAM in the Servo DSP (IC701), then read and checked.

(4-3) DSP Driver Test
Test signal data → DSP Driver
Error: Not detected.
Caution: Do not conduct this test with a mechanical deck connected.
The maximum voltage is applied to the Servo Driver IC (IC801, IC802). If mechanical deck is connected, the motor and optics could be damaged. Disconnect mechanical deck following the output message, then enter specified 4- or 5-digit number from the remote commander, and press the ENTER. The test is conducted only when the input data accord. Check the output level, then press the NEXT to finish the test.
This test is skipped if “All” is selected.

Supplement: How to disconnect mechanical deck
Disconnect flat cables connected to the CN002 and CN003 of MB-82/85 board. Also, disconnect harness from the CN011.

5. Supply

Caution: Do not conduct this check with a mechanical deck connected.
An access is made to the stream supply and servo control IC (IC303) and external RAM (IC304) using check data. If mechanical deck is connected, the motor and optics could be damaged. This check is also executed by the “All” menu item.

Supplement: How to disconnect mechanical deck
Disconnect flat cables connected to the CN002 and CN003 of MB-82/85 board. Also, disconnect harness from the CN011.

(5-2) ARP Register Check
Data write → read, and accord check
Error 08: ARP register write, and read data discord
Data 0x00 to 0xFF are written to the TMAX register (address 0xC6) in ARP (IC303), then they are read and checked.

(5-3) ARP to RAM Data Bus
Data write → read, and accord check
Error 09: ARP ←→ RAM data bus error
Data 0x0001 to 0x8000 where one bit each is set to 1 are written to the address 0 of RAM (IC304) connected to the ARP (IC303) through the bus, then they are read and checked. In case of discord, written bit pattern and read data are displayed. If data where multiple bits are 1 are read, the bits concerned may touch each other. Further, if data where certain bit is always 1 or 0 regardless of written data, the line could be disconnected or shorted.

(5-4) ARP to RAM Address Bus
Data write → other address read discord check
Error 10: ARP → RAM address bus error
Caution: Address and data display in case of an error is different from the display of other diagnosis (described later).

Before starting the test, all addresses of RAM (IC304) are cleared to 0x0000.
First, 0xA55A is written to the address 0x00000, and the address data are read and checked from addresses 0x00001 to 0x80000 while shifting 1 bit each. Next, the data at that address is cleared, and it is written to the address 0x00001, and read and checked in the same manner. This check is repeated up to the address 0x80000 while shifting the address data by 1 bit each.
If data other than 0 is read at the addresses except written address, an error is given because all addresses were already cleared to 0. In this check, the error display pattern is different from that of other diagnosis; read data, written address, and read address are displayed in this order. However, the message uses same template, and accordingly exchange Address and Data when reading. The following display, for example,

```
    ### Syscon Diagnosis ###




 5-4. ARP to RAM Address Bus
Error 10: ARP - RAM Address B
Address    : 0000A55A
Write Data : 00000000
Read Data  : 00080000
Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

shows the data 0xA55A was read from address 0x00080000 though it was written to the address 0x00000000. This implies that these addresses are in the form of shadow. Also, if the read data is not 0xA55A, another error will be present.

(5-5) ARP RAM Check
Data write → read, and accord check
Error 11: ARP RAM read data discord
The program code data stored in ROM are copied to all areas of RAM (IC304) connected to the ARP (IC303) through the bus, then they are read and checked if they accord. If the detail check was selected initially, the data are written to all areas and read, then the same test is conducted once again with the data where all bits are inverted between 1 and 0. If discord is detected, faulty address, written data, and read data are displayed following the error code 11, and the test is suspended.

6. AV Decoder

(6-2) 1930 RAM
Data write → read, and accord check
Error 13: AVD RAM read data discord
The program code data stored in ROM (IC205) are copied to all areas of RAM (IC402, IC403) connected to the AVD (IC401) through the bus, then they are read and checked if they accord. Further, the same test is conducted once again with the data where all bits are inverted between 1 and 0. If discord is detected, faulty address, written data, and read data are displayed following the error code 13, and the test is suspended.

(6-3) 1930 SP
ROM → AVD RAM → Video OUT
Error: Not detected.
The data including sub picture streams in ROM (IC205) are transferred to the RAM (IC402, IC403) in AVD (IC401), and output as video signals from the AVD (IC401).
They are output from all video terminals (Composite, Y/C, Component) except EURO AV terminal.

7. Video

(7-2) Color Bar
AVD color bar command write → Video OUT
Error: Not detected.
The command is transferred to the AVD, and the color bar signals are output from video terminals.
They are output from all video terminals (Composite, Y/C, Component) except EURO AV terminal.

8. Audio

(8-2) ARP → 1930
Error 14: ARP → 1930 video NG
15: ARP → 1930 audio NG

(8-3) Test Tone
A pink noise signal is output from the AVD (IC401) through optical coaxial digital terminal and analog audio terminal.
Error: Not detected.
For DVP-S330 (2ch models):
All channels → 2ch Left → 2ch Right are checked in this order.
For DVP-S530D/DVP-S550D/DVP-S705D
(DD models):
All channels → 2ch Left → 2ch Right → Front Left → Front Right → Rear Left → Rear Right → Center → Sub Woofer are checked in this order.
Note: Sub Woofer is checked only for low-frequency components, and no sound will be heard unless a proper super woofer is connected.

Check Items List

2) Version
(2-2) Revision
(2-3) ROM Check Sum
(2-4) Model Type
(2-5) Region

3) Peripheral
(3-2) Gate Array Check
(3-3) EEPROM Check
(3-4) NAND Flash Check
(DVP-S550D/DVP-S705D only)

4) Servo
(4-2) Servo DSP Check
(4-3) DSP Driver Test

5) Supply
(5-2) ARP Register Check
(5-3) ARP to RAM Data Bus
(5-4) ARP to RAM Address Bus
(5-5) ARP RAM Check

6) AV Decoder
(6-2) 1930 RAM
(6-3) 1930 SP

7) Video
(7-2) Color Bar

8) Audio
(8-2) ARP → 1930
(8-3) Test Tone

Error Codes List
00: Error not detected
01: RAM write/read data discord
02: Gate array NG
03: EEPROM NG
04: Flash memory clear error
05: Flash memory write error
06: Flash memory read data discord
08: ARP register read data discord
09: ARP ←→ RAM data bus error
10: ARP ←→ RAM address bus error
11: ARP RAM read data discord
12: Servo DSP NG
13: 1930 SDRAM NG
14: ARP → 1930 video NG
15: ARP → 1930 audio NG
16: 1910 UCODE download NG
17: System call error (function not supported)
18: System call error (parameter error)
19: System call error (illegal ID number)
20: System call error (time out)
21: NAND Flash faulty blocks exceed 10
90: Error occurred
91: User verification NG
92: Diagnosis cancelled

6-4. DRIVE AUTO ADJUSTMENT

On the Test Mode Menu screen, press 1 key on the remote commander, and the drive auto adjustment menu will be displayed.

```
   ## Drive Auto Adjustment ##

         Adjustment Menu

0. ALL
1. DVD-SL
2. CD
3. DVD-DL
4. SACD



                    Exit: RETURN
```

Normally, 0 is selected to adjust DVD (single layer), CD, DVD (dual layer), and SACD in this order. But, individual items can be adjusted for the case where adjustment is suspended due to an error. In this mode, the adjustment can be made easily through the operation following the message displayed on the screen.
The disc used for adjustment must be the one specified for adjustment. However, for SACD disc, use the player with initial data if the disc is not available.

0. ALL

Select 0 and press ENTER key, and the servo set data in EEPROM will be initialized. Then, 1. DVD-SL disc, 2. CD disc, 3. DVD-DL disc, and 4. SACD disc are adjusted in this order. Each time one disc was adjusted, it is ejected. Replace it with the specified disc following the message. Though the message to confirm whether discs other than SACD disc are adjusted is not displayed, you can finish the adjustment if pressing the STOP button. During adjustment of each disc, the measurement for disc type judgment is made. As automatic adjustment does not judge the disc type unlike conventional models, take care not to insert wrong type discs. Also, do not give a shock during adjustment.

1. DVD-SL (single layer)

Select 1, insert DVD single layer disc, and press ENTER key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

DVD Single Layer Disc Adjustment Steps
1. SLED TILT Reset
2. Disc Check Memory SL
3. Wait 300 msec
4. Set Disc Type SL
5. LD ON
6. Spdl Start
7. Wait 1 sec
8. Focus Servo ON 0
9. Auto Track Offset Adjust
10. CLVA ON
11. Wait 500 msec
12. Tracking ON
13. Wait 1 sec
14. Sled ON
15. Check CLV Lock
16. Auto LFO Adjust
17. Auto Focus Offset Adjust
18. Auto Tilt Position Adjust
19. Auto Focus Gain Adjust
20. Auto Focus Offset Adjust
21. EQ Boost Adjust
22. Auto LFO Adjust
23. Auto Track Gain Adjust, Search Check
24. 32Tj Fwd
25. 32Tj Rev
26. 500Tj Fwd
27. 500Tj Rev

28. All Servo Stop
29. Eep Copy Loop Filter Offset

2. CD

Select 2, insert CD disc, and press ENTER key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

CD Adjustment Steps
1. Sled Tilt Rest
2. Disc Check Memory CD
3. Wait 500 msec
4. Set Disc Type CD
5. LD ON
6. Spdl Start
7. Wait 500 msec
8. Focus Servo ON 0
9. Auto Track Offset Adjust

10. CLVA ON
11. Wait 500 msec
12. Tracking ON
13. (TC Display Start)
14. Wait 1 sec
15. Jitter Display Start
16. Sled ON
17. Check CLV ON
18. Auto LFO Adjust
19. Auto Focus Offset Adjust
20.
21. Auto Focus Gain Adjust
22. Auto Focus Offset Adjust
23. Eq Boost Adjust
24. Auto LFO Adjust
25. Auto Track Gain Adjust, Search Check
26. 32Tj Fwd
27. 32Tj Rev
28. 500Tj Fwd
29. 500Tj Rev

30. All Servo Stop

3. DVD-DL (dual layer)

Select 3, insert DVD dual layer disc, and press ENTER key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

DVD Dual Layer Disc Adjustment Steps
1. Sled Tilt Reset
2. Disc Check Memory DL
3. Wait 500 msec
4. Set Disc Type DL
5. LD ON
6. Spdl Start
7. Wait 1 sec, Layer 1 Adjust
8. Focus Servo ON 0
9. Auto Track Offset Adjust

10. Clva ON
11. Wait 500 msec
12. Tracking ON
13. Wait 500 msec
14. Sled ON
15. Check CLV Lock
16. Auto Loop Filter Offset Auto Focus Adjust
17.
18. Auto Focus Gain Adjust
19. Auto Focus Offset Adjust
20. Eq Boost Adjust
21. Auto Loop Filter Offset
22. Auto Track Gain Adjust, Search Check
23. 32Tj Fwd
24. 32Tj Rev
25. 500Tj Fwd
26. 500Tj Rev, Layer 0 Adjust
27. Fj (L1 -> L0)
28. Auto Track Offset Adjust L0

29. Clva ON
30. Wait 500 msec
31. Tracking ON
32. Wait 500 msec
33. Sled ON
34. Check CLV Lock
35. Auto Focus Filter Offset
36. Auto Focus Adjust
37.
38. Auto Focus Gain Adjust
39. Auto Focus Offset Adjust
40. Eq Boost Adjust
41. Auto Loop Filter Offset
42. Auto Track Gain Adjust, Search Check
43. 32Tj Fwd
44. 32Tj Rev
45. 500Tj fwd
46. 500Tj Rev, Layer Jump Check
47. Lj (L0 -> L1)
48. Lj (L1 -> L0)

49. All Servo Stop

4. SACD

Select 4, insert SACD disc, and press ENTER key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM. However, if SACD disc is not available, use the player with initial data, skipping the SACD adjustment. In this case, you can finish the adjustment if pressing the STOP button.

SACD Adjustment Steps
1. Sled Tilt Reset
2. Set Disc Type CD
3. LD ON
4. Spdl Start
5. Wait 500 msec
6. Focus Servo ON 0
7. Auto track Offset Adjust
8.
9. CLVA ON
10. Wait 500 msec
11. Tracking ON
12. Wait 1 sec
13. Sled ON
14. Check CLV ON
15. Auto Focus Offset Adjust
17.
18. Auto Focus Gain Adjust
19. Auto Focus Offset Adjust
20. Eq Boost Adjust
21. Auto LFO Adjust
22. Auto Track Gain Adjust

23. 32Tj Fwd
24. 32Tj Rev
25. 500Tj Fwd
26. 500Tj Rev

27. All Servo Stop */

6-5. DRIVE MANUAL OPERATION

On the Test Mode Menu screen, select 2, and the manual operation menu will be displayed. For the manual operation, each servo on/off control and adjustment can be executed manually.

```
  ## Drive Manual Operation ##

         Operation Menu
1. Disc type
2. Servo Control
3. Track/Layer Jump
4. Manual Adjustment
5. Auto Adjustment
6. Memory Check

0. Disc Check Memory

                Exit: Return
```

In using the manual operation menu, take care of the following points. These commands do not provide protection, thus requiring correct operation. The sector address or time code field is displayed when a disc is loaded.

1. Set correctly the disc type to be used on the Disc Type screen.
   The disc type must be set after a disc was loaded.
   The set disc type is cleared when the tray is opened.
2. After power ON, if the Drive Manual Operation was selected, first perform "Reset SLED TILT" by opening 1. Disc Type screen.
3. In case of an alarm, immediately press the STOP button to stop the servo operation, and turn the power OFF.

Basic operation (controllable from front panel or remote commander)

POWER	Power OFF
STOP	Servo stop
OPEN/CLOSE	Stop+Eject/Loading
RETURN	Return to Operation Menu or Test Mode Menu
NEXT, PREV	Transition between sub modes of menu
1 to 9, 0	Selection of menu items
Cursor UP/DOWN	Increase/Decrease in manually adjusted value

0. Disc Check Memory

```
            Disc Check



1. SL Disc Check
2. CD Disc Check
3. DL Disc Check




0. Reset SLED TILT
```

On this screen, the mirror time is measured to judge the disc and it is written to the EEPROM. First load DVD SL disc and press [1], next load CD disc and press [2], and finally load DVD DL disc and press [3].
The adjustment must be executed more than once after default data were written. External vibration or shock to the player must not be given. Reference value for DVD is from 10 to 20, and for CD, from 28 to 4F.
Check that the value of CD is larger than that of DVD.
When those values are beyond a range perform this adjustment again.
From this screen, you can go to another mode by pressing [NEXT] or [PREV] key, but you cannot enter this mode from another mode. You can enter this mode from the Operation Menu screen only.

1. Disc Type

```
             Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. SACD     12 cm
6. dvd SL   8 cm
7. DVD DL   8 cm
8. CD       8 cm
9. SACD     8 cm
0. Reset SLED TILT
                         EMG. 00
```

On this screen, select the disc type. To select the disc type, press the number of the loaded disc. The selected disc type is displayed at the bottom. Selecting [1] automatically selects and displays the disc type. In case of wrong display, retry “Disc Check Memory”.
Also, opening the tray causes the set disc type to be cleared. In this case, set the disc type again after loading.
In performing manual operation, the disc type must be set.
Once the disc type has been selected, the sector address or time code display field will appear as shown below. These values are displayed when PLL is locked.

```
             Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. SACD     12 cm
6. dvd SL   8 cm      ___
7. DVD DL   8 cm
8. CD       8 cm
9. SACD     8 cm
0. Reset SLED TILT
       SA.       SI.    EMG. 00
DVD SL 12 cm
```

Display when DVD SL 12cm disc was selected

```
           Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. SACD     12 cm
6. dvd SL   8 cm
7. DVD DL   8 cm
8. CD       8 cm
9. SACD     8 cm
0. Reset SLED TILT
         TC.——:——:—— EMG. 00
CD   12 cm
```

Display when CD 12cm disc was selected

[0] Reset SLED TILT	Reset the Sled and Tilt to initial position.
[1] Disk Type Check	Judge automatically the loaded disc. As the judged result is displayed at the bottom of screen, make sure that it is correct. If Disc Check Memory menu has not been executed after EEPROM default setting, the disc type cannot be judged. In this case, return to the initial menu and make a check for three types of discs (SL, DL, CD).
[2] to [9]	Select the loaded disc. The adjusted value is written to the address of selected disc. No further entry is necessary if [1] was selected.

2. Servo Control

```
         Servo Control
1. LD        Off R.Sled FWD
2. SP        Off L.Sled REV
3. Focus     Off
4. TRK.      Off
5. Sled      Off
6. CLVA      Off
7. FCS. Srch Off


0. Reset SLED TILT
       SA.————SI.—— EMG. 00
DVD SL 12 cm
```

On this screen, the servo on/off control necessary for replay is executed. Normally, turn on each servo from 1 sequentially and when CLVA is turned on, the usual trace mode becomes active. In the trace mode, DVD sector address or CD time code is displayed. This is not displayed where the spindle is not locked.
The spindle could run overriding the control if the spindle system is faulty or RF is not present. In such a case, do not operate CLVA.

0	Reset SLED TILT	Reset the Sled and Tilt to initial position.
1	LD	Turn ON/OFF the laser.
2	SP	Turn ON/OFF the spindle.
3	Focus	Search the focus and turn on the focus.
4	TRK	Turn ON/OFF the tracking servo.
5	Sled	Turn ON/OFF the sled servo.
6	CLVA	Turn ON/OFF normal servo of spindle servo.
7	FCS. Srch	Apply same voltage as that of focus search to the focus drive to check the focus drive system.
→	Sled FWD	Move the sled outward. Perform this operation with the tracking servo turned off.
←	Sled REV	Move the sled inward. Perform this operation with the tracking servo turned off.
↑	Tilt UP	Move the tilt upward.
↓	Tilt DOWN	Move the tilt downward.

The following menus are normally not used.

3. Track/Layer Jump

4. Manual Adjustment

5. Auto Adjustment

The persons who do not know well about these menus should not use them.

6. Memory Check

```
EEPROM DATA
               CD       – DVD –
ID No. 00     SACD     SL  L0  L1
Focus Gain    xx xx    xx  xx  xx
TRK. Gain     xx xx    xx  xx  xx
Focus Offset  xx xx    xx  xx  xx
TRK. Offset   xx xx    xx  xx  xx
L. F. Offset  xx xx    xx  xx  xx
EQ Boost      xx xx    xx  xx  xx
Jitter        xx xx    xx  xx  xx
Mirror Time   xx xx    xx  xx  xx
_
CLEAR: Default Set
```

This screen displays current servo adjusted data stored in the EEPROM. Though adjusted data can be initialized with the CLEAR key, they cannot be restored after initialization.

So, before clearing, make a note of the adjusted data.

For reference, the drive has been designed so that the gain center value is 20 and offset value is 80. Other values will be in a range of 10 to 80. If extreme value such as 00 or FF is set, adjustment will be faulty. In such a case, check for disc scratch or cable disconnection, then perform adjustment again.

6-6. MECHA AGING

```
      ### Mecha Aging ###



Press OPEN key




Abort: STOP key
```

On the Test Mode Menu screen, selecting 3 executes the aging of mechanism. First, open the tray and load a disc. Press the PLAY key, and the aging will start. When the tray is closed, the disc type and size are judged and displayed. During aging, the repeat cycle is displayed. Aging can be aborted at any time by pressing the STOP key. After the operation has stopped, unload the disc and press again the STOP key or the RETURN key to return to the Test Mode Menu.

6-7. EMERGENCY HISTORY

```
     ### MEG. History ###

Laser Hours     CD   xxxxxxxh
                DVD  xxxxxxxh

1. 00 00 00 00  00 00 00 00
   00 00 00 00  00 00 00 00

2. 00 00 00 00  00 00 00 00
   00 00 00 00  00 00 00 00

Select: 1 – 9   Scroll: UP/DOWN
(1: Last EMG.)   Exit: Return
```

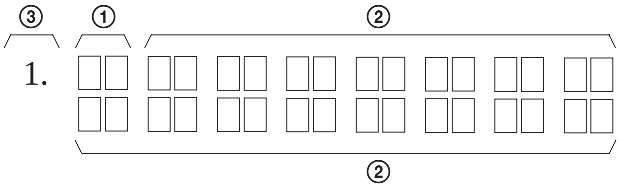
On the Test Mode Menu screen, selecting 4 displays the information such as servo emergency history. The history information from last 1 up to 10 can be scrolled with ↑ key or ↓ key. Also, specific information can be displayed by directly entering that number with ten keys.

The upper two lines display the laser ON total hours. Data below minutes are omitted.

Clearing History Information

Clearing laser hours
◎ Press DISPLAY and CLEAR keys in this order.
Both CD and DVD data are cleared.
Clearing emergency history
◎ Press TITLE and CLEAR keys in this order.
Initializing set up data
◎ Press DVD and CLEAR keys in this order.
The data have been initialized when “Set Up Initialized” message is displayed. The EMG. History screen will be restored soon.

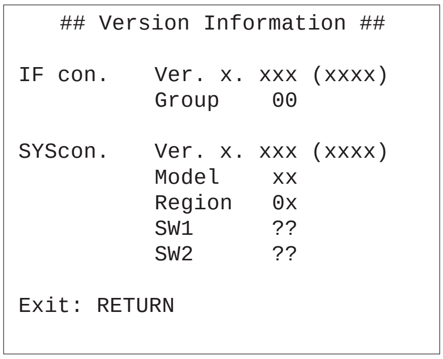
How to see Emergency History



① : Emergency Code
② : Don’t Care
These codes are used for verification of software designing.
③ : Historical order 1 to 9

Emergency Codes List
10: Communication to IC001 (TK-51/54 board) failed.
11: Each servo for focus, tracking, and spindle is unlocked.
12: Communication to EEPROM, IC201 (MB-82/85 board) failed.
13: Writing of hours meter data to EEPROM, IC201 (MB-82/85 board) failed.
14: Communication to Servo DSP IC701 (MB-82/85 board) failed, or Servo DSP is faulty.
20: Initialization of tilt servo and sled servo failed. They are not placed in the initial position.
21: Tilt servo operation error
22: Syscon made a request to move the tilt servo to wrong position.
23: Sled servo operation error
24: Syscon made a request to move the sled servo to wrong position.
30: Tracking balance adjustment error
31: Tracking gain adjustment error
32: Focus balance adjustment error
33: Focus bias adjustment error
34: Focus gain adjustment error
35: Tilt servo adjustment error
36: RF equalizer adjustment error
37: RF group delay adjustment error
38: Jitter value after adaptive servo operation is too large.
40: Focus servo does not operate.
41: With a dual layer (DL) disc, focus jump failed.50: CLV (spindle) servo does not operate.
51: Spindle does not stop.
60: With a DVD disc, Syscon made a request to seek nonexistent address.
61: With a CD disc, Syscon made a request to seek nonexistent address.
62: With a CD disc, Syscon made a request to seek nonexistent track No. and index No.
63: With a DVD disc, seeking of target address failed.
64: With a CD disc, seeking of target address failed.
65: With a CD disc, seeking of target index failed.
70: With a DVD disc, physical information data could not be read.
71: With a CD disc, TOC data could not be read.
80: Disc type judgment failed.
81: As disc type judgment failed, retry was repeated.
82: As disc type judgment failed, a measurement error occurred.
83: Disc type could not be judged within the specified time.
84: Illegal command code was received from Syscon.
85: Illegal command was received from Syscon.

6-8. VERSION INFORMATION



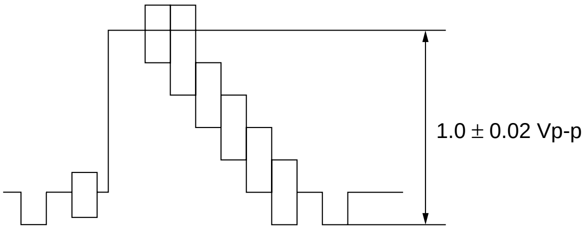
```
    ## Version Information ##

IF con.    Ver. x. xxx (xxxx)
           Group    00

SYScon.    Ver. x. xxx (xxxx)
           Model    xx
           Region   0x
           SW1      ??
           SW2      ??

Exit: RETURN
```

On the Test Mode Menu screen, selecting 5 displays the ROM version and region code.
The parenthesized hexadecimal number in version field is checksum value of ROM.

6-9. VIDEO LEVEL ADJUSTMENT

On the Test Mode Menu screen, selecting 6 displays color bars for video level adjustment. During display of color bars, OSD disappears but the menu screen will be restored if pressing any key.

Measurement point : LINE OUT VIDEO
(75 Ω terminating resistance)
Measuring instrument : Oscilloscope
Adjustment device : RV401 on MB-82/85 board
Specified value : 1.0 ± 0.02 Vpp



SECTION 7
ELECTRICAL ADJUSTMENTS

In making adjustment, refer to 7-3. Adjustment Related Parts Arrangement.

Note: During diagnostic check, the characters and color bars can be seen only with the NTSC monitor. Therefore, for diagnostic check, use the monitor that supports both NTSC and PAL modes

This section describes procedures and instructions necessary for adjusting electrical circuits in this set.

Instruments required:

1) Color monitor TV
2) Oscilloscope 1 or 2 phenomena, band width over 100 MHz, with delay mode
3) Frequency counter (over 8 digits)
4) Digital voltmeter
5) Standard commander
   (RMT-D108A/D109A/D111A/D111E)
6) DVD reference disc
   HLX-501 (J-6090-071-A) (dual layer)
   HLX-503 (J-6090-069-A) (single layer)
   HLX-504 (J-6090-088-A) (single layer)
   HLX-505 (J-6090-089-A) (dual layer)
7) SACD reference disc
   HLXA-509 (J-6090-090-A)

7-1. POWER SUPPLY ADJUSTMENT

1. Power Supply Check (HS-030SF/030SH BOARD, SRV902UC BOARD)

Mode	E-E
Instrument	Digital voltmeter
+5 V Check	
Test point	CN202 pin ⑤
Specification	5.0 ± 0.2 Vdc
+3.3 V Check	
Test point	CN202 pin ⑦
Specification	3.3 ± 0.2 Vdc
EVER+5 V Check	
Test point	CN203 pin ②
Specification	5.0 ± 0.2 Vdc
P_CONT Check	
Test point	CN203 pin ①
Specification	4V – 5 Vdc
A +12 V Check	
Test point	CN202 pin ①
Specification	$9.5^{+1.5}_{-0.5}$ Vdc
–12 V Check	
Test point	CN203 pin ⑤
Specification	–12.0 ± 1.0 Vdc
M +12 V Check	
Test point	CN202 pin ②
Specification	12.0 ± 1.0 Vdc

Checking method:

1) Confirm that each voltage satisfies the specification.

2. +3.3 V Adjustment (SRV902UC BOARD) (DVP-S330/S530D: US, Canadian/S550D)

Mode	PB
Measuring Instrument	Digital voltmeter
Measurement Point	CN202 pin ⑦
Adjusting Element	VR201
Specified Value	3.3 ± 0.2 V

7-2. ADJUSTMENT OF VIDEO SYSTEM

1. Video Level Adjustment (MB-82/85 BOARD)

<Purpose>

This adjustment is made to satisfy the NTSC standard, and if not adjusted correctly, the brightness will be too large or small.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	LINE OUT (VIDEO) connector (75 Ω terminated)
Instrument	Oscilloscope
Adjusting element	RV401
Specification	1.0 ± 0.02 Vp-p

Adjusting method:

1) In the test mode initial menu “6” Video Level Adjustment, set so that color bars are generated.
2) Adjust the RV401 to attain 1.0 ± 0.02 Vp-p.

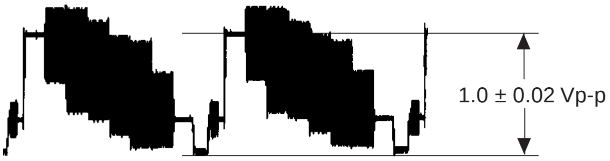


Figure 7-1

2. S-terminal Output Check (MB-82/85 BOARD)

<Purpose>

Check S-terminal video output. If it is incorrect, pictures will not be displayed correctly in spite of connection to the TV with a S-terminal cable.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	S VIDEO OUT (S-Y) connector (75 Ω terminated)
Instrument	Oscilloscope
Specification	1.0 ± 0.1 Vp-p

Checking method:

1) In the test mode initial menu “6” Video Level Adjustment, set so that color bars are generated.
2) Confirm that the S-Y level is 1.0 ± 0.1 Vp-p.

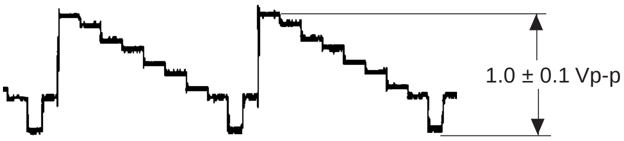


Figure 7-2

3. Checking Component Video Output B-Y (MB-82/85 BOARD) (DVP-S530D/S550D/S705D)

<Purpose>

This checks component video output B-Y. If it is incorrect, correct colors will not be displayed when connected to, for instance, projector.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	COMPONENT VIDEO OUT (B-Y) connector (75 Ω terminated)
Instrument	Oscilloscope
Specification	700 ± 70 mVp-p

Checking method:

1) Confirm that the B-Y level is 700 ± 70 mVp-p.

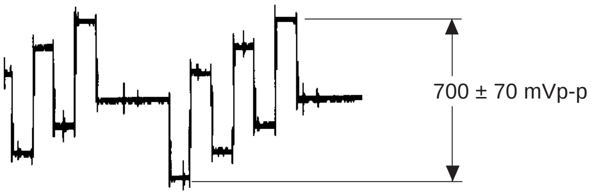


Figure 7-3

4. Checking Component Video Output R-Y (MB-82/85 BOARD) (DVP-S530D/S550D/S705D)

<Purpose>

This checks component video output R-Y. If it is incorrect, correct colors will not be displayed when connected to, for instance, projector.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	COMPONENT VIDEO OUT (R-Y) connector (75 Ω terminated)
Instrument	Oscilloscope
Specification	700 ± 70 mVp-p

Checking method:

1) Confirm that the R-Y level is 700 ± 70 mVp-p.

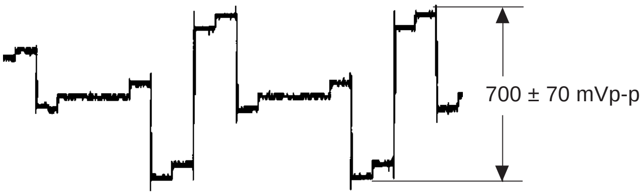


Figure 7-4

5. Checking Component Video Output Y (MB-82/85 BOARD) (DVP-S530D/S550D/S705D)

<Purpose>

This checks component video output Y. If it is incorrect, correct brightness will not be attained when connected to, for instance, projector.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	COMPONENT VIDEO OUT (Y) connector (75 Ω terminated)
Instrument	Oscilloscope
Specification	1.0 ± 0.1 Vp-p

Checking method:

1) Confirm that the Y level is 1.0 ± 0.1 Vp-p.

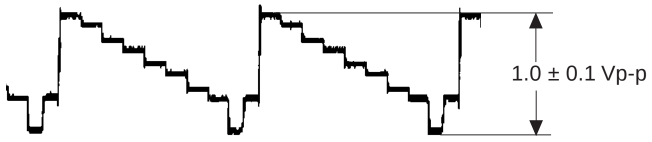


Figure 7-5

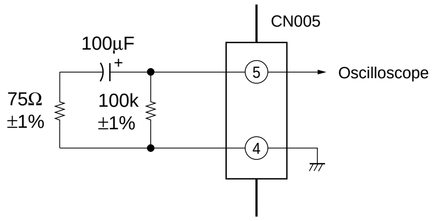
6. Checking S Video Output S-C (MB-82/85 BOARD)

<Purpose>

This checks whether the S-C satisfies the NTSC Standard. If it is not correct, the colors will be too dark or light.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	CN005 pin ⑤
Instrument	Oscilloscope
Specification	286 ± 50 mVp-p

Connection:


CN005
100µF
75Ω
±1%
100k
±1%
5
4
Oscilloscope

Checking method:

1) Confirm that the S-C burst is 286 ± 50 mVp-p.

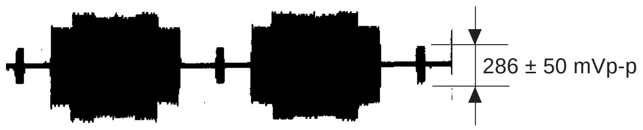
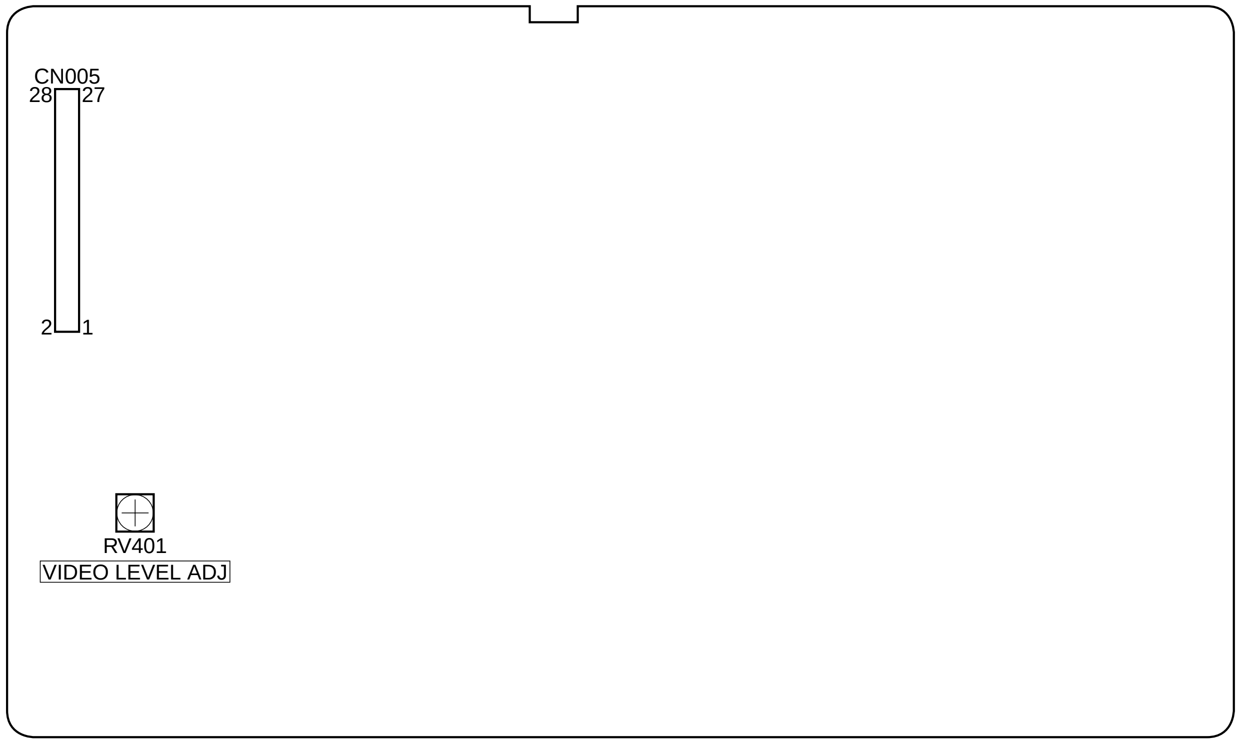


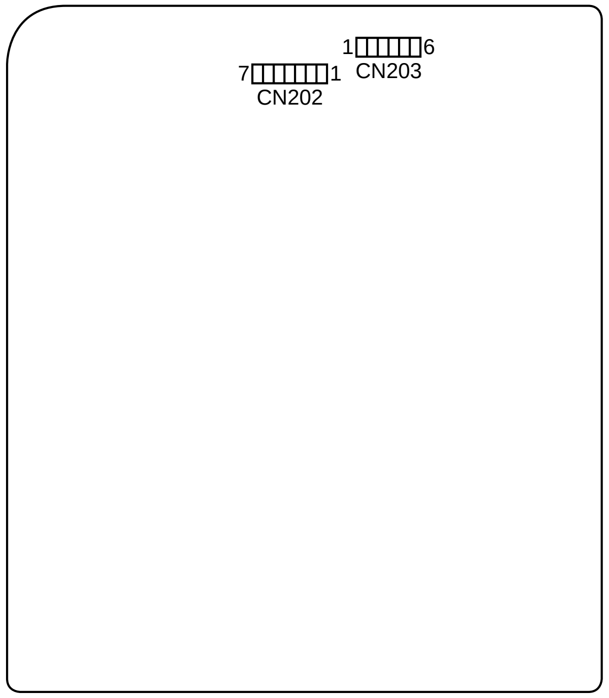
Figure 7-6

7-3. ADJUSTMENT RELATED PARTS ARRANGEMENT

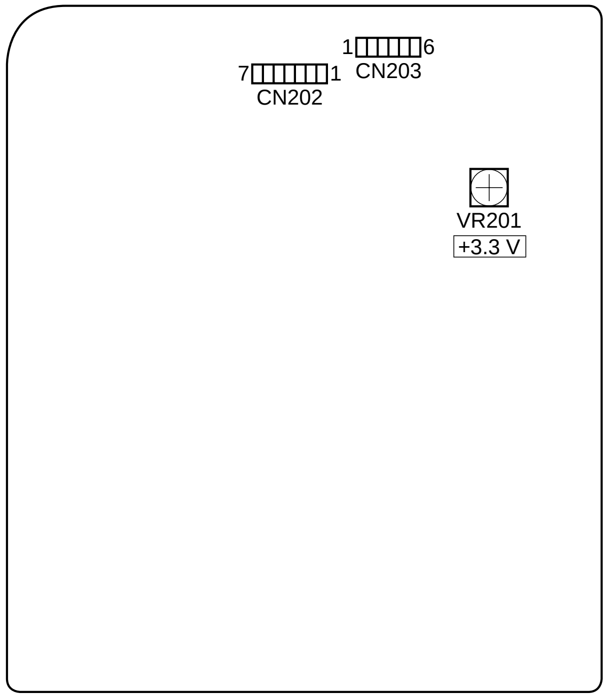
MB-82/85 BOARD (SIDE A)


CN005
28
27
2
1
RV401
VIDEO LEVEL ADJ

HS-030SF/030SH BOARD (SIDE A)


1
6
CN203
7
1
CN202

SRV902UC BOARD (SIDE A)


1
6
CN203
7
1
CN202
VR201
+3.3 V

SECTION 8
REPAIR PARTS LIST

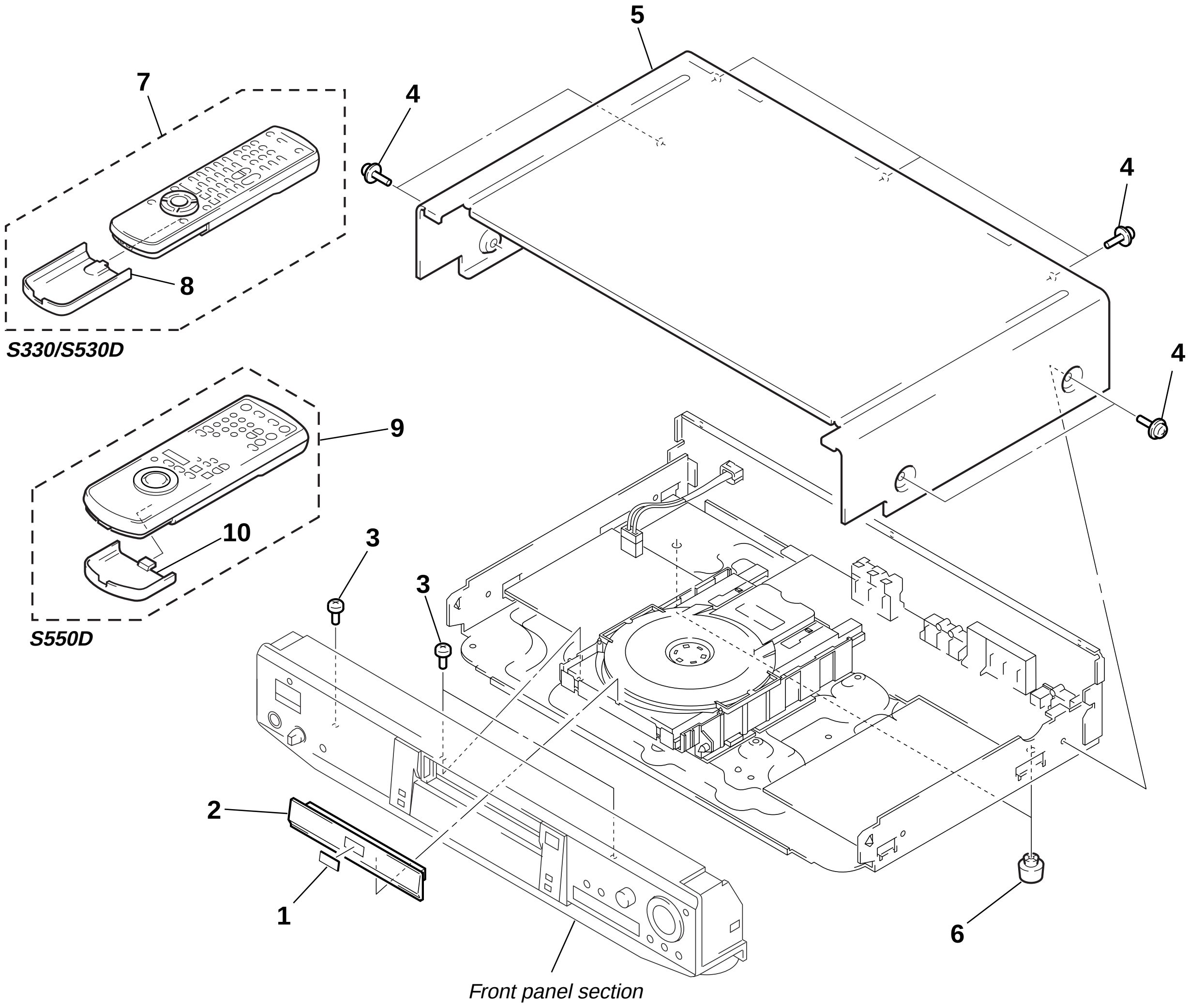
8-1. EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

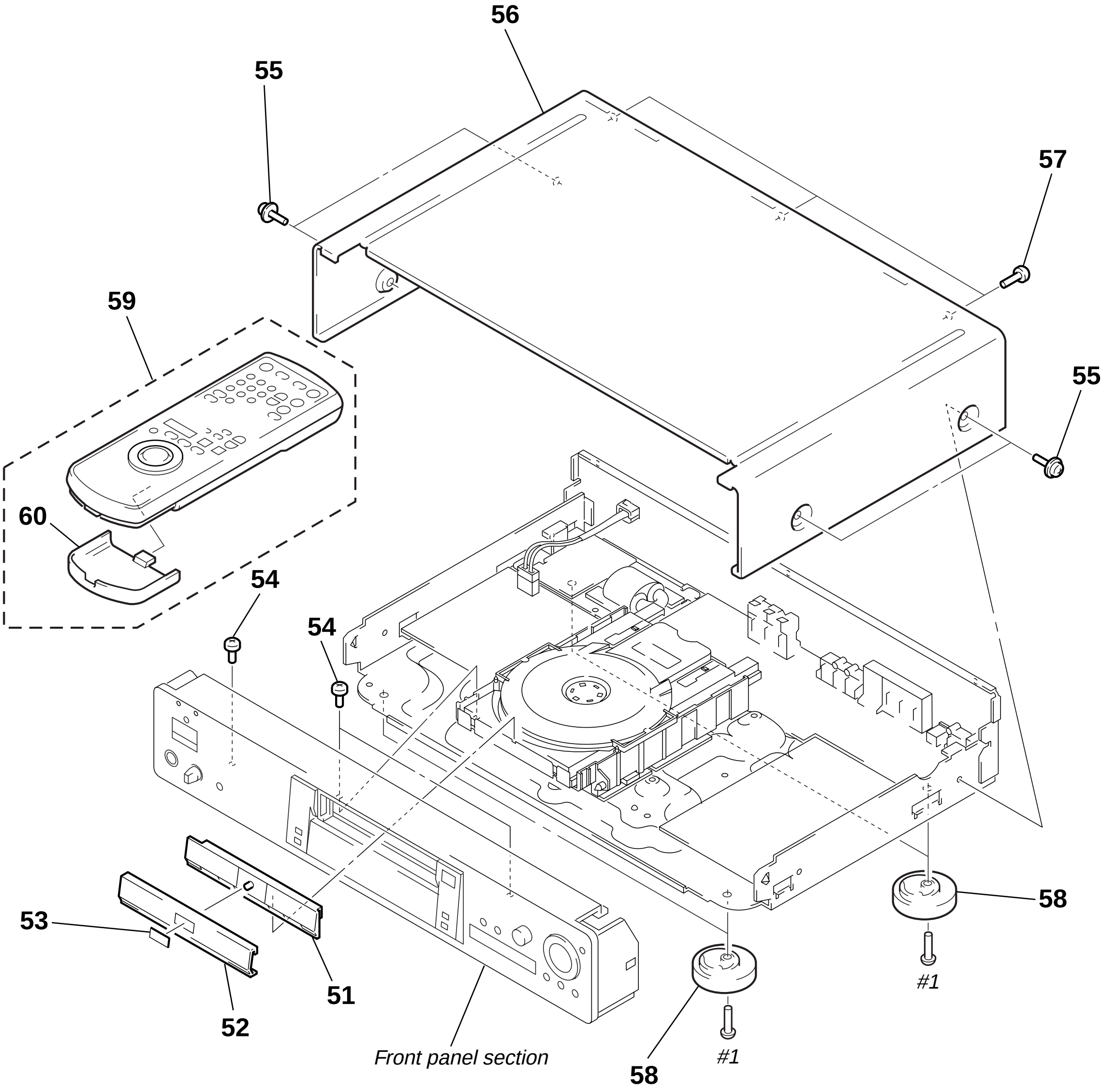
Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

8-1-1. CASE ASSEMBLY (S330/S530D/S550D)



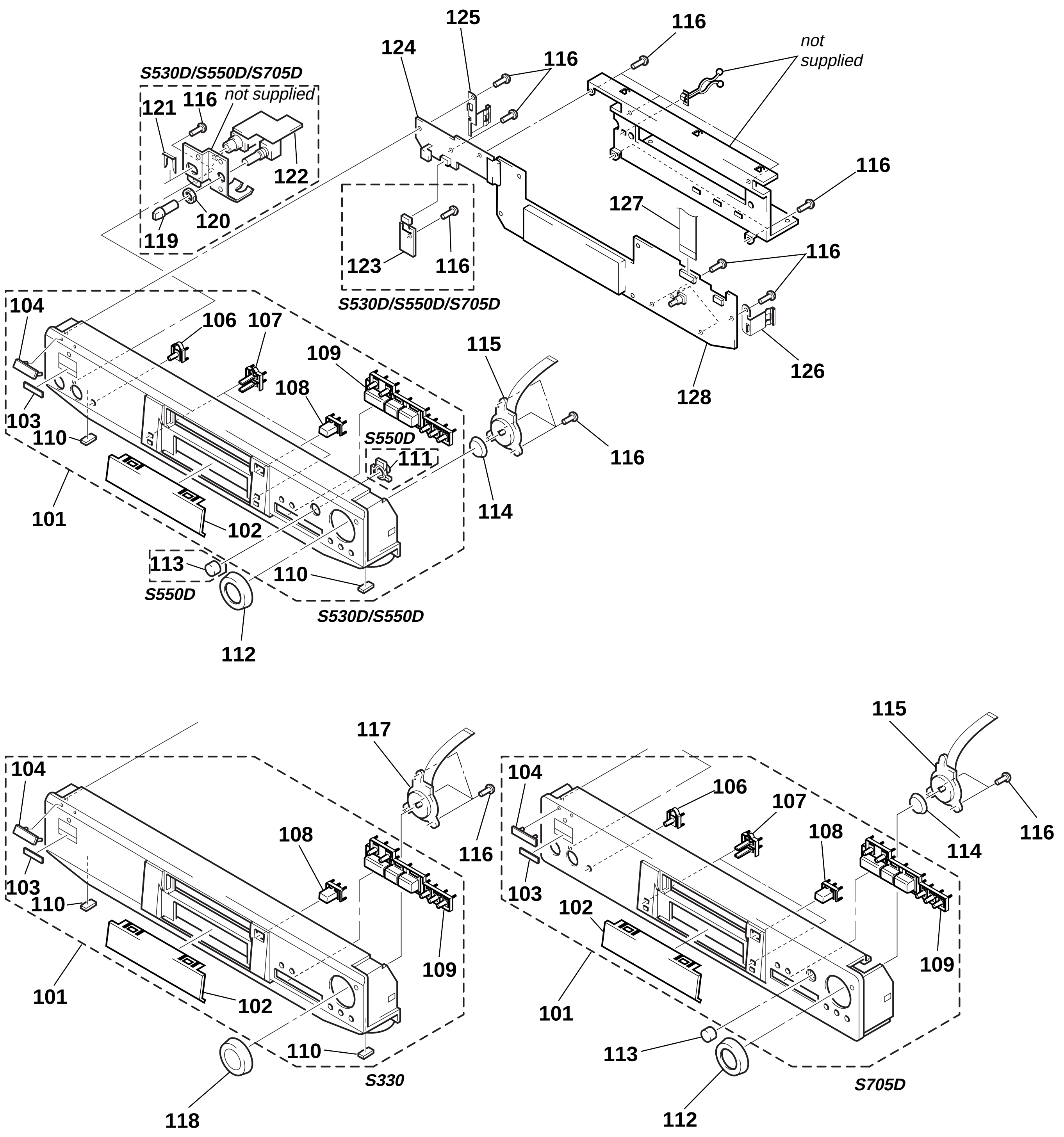
Ref. No.	Part No.	Description	Remark
1	3-975-726-41	EMBLEM, DVD	
2	3-053-498-01	COVER (BK), TRAY	
3	3-970-608-01	SUMITITE (B3), +BV	
4	3-710-901-41	SCREW, TAPPING	
5	3-053-510-01	CASE, TOP	
6	3-973-973-01	FOOT (S)	
7	1-418-320-21	COMMANDER, STANDARD (RMT-D108A)	(S530D)
7	1-418-320-41	COMMANDER, STANDARD (RMT-D109A)	(S330)
8	3-053-633-01	COVER, BATTERY (for RMT-D108A/D109A)	(S330/S530D)
9	1-418-321-11	COMMANDER, STANDARD (RMT-D111A)	(S550D)
10	3-055-539-01	COVER, BATTERY (for RMT-D111A) (S550D)	

8-1-2. CASE ASSEMBLY (S705D)



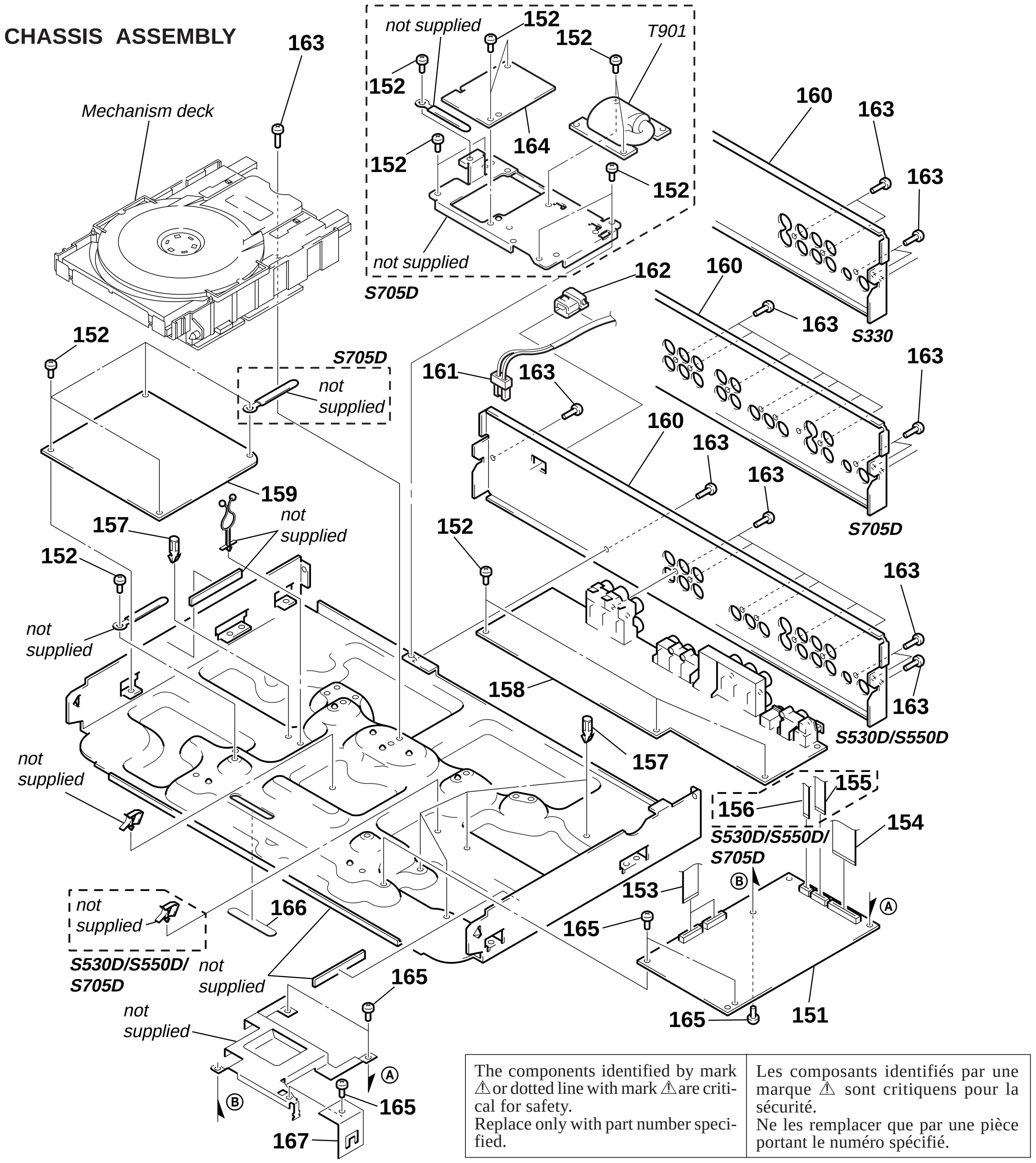
Ref. No.	Part No.	Description	Remark
51	3-053-493-01	ORNAMENT (M), TRAY	
52	3-053-492-01	ORNAMENT (AL), TRAY (Hong Kong)	
52	3-053-492-21	ORNAMENT (AL), TRAY (Singapore)	
53	3-975-726-31	EMBLEM, DVD (Singapore)	
53	3-975-726-51	EMBLEM, DVD (Hong Kong)	
54	3-970-608-01	SUMITITE (B3), +BV	
55	3-710-901-51	SCREW, TAPPING	
56	X-3949-708-1	CASE ASSY, TOP (Singapore)	
56	X-3949-709-1	CASE ASSY, TOP (Hong Kong)	
57	3-053-984-01	SCREW (+BV/CU)	
58	X-3602-115-1	FOOT ASSY	
59	1-418-321-61	COMMANDER, STANDARD (RMT-D111E/N) (Hong Kong)	
59	1-418-321-71	COMMANDER, STANDARD (RMT-D111E/H) (Singapore)	
60	3-055-539-01	COVER, BATTERY (for RMT-D111E/N/D111E/H)	

8-1-3. FRONT PANEL ASSEMBLY


125
116
124
116
not supplied
S530D/S550D/S705D
121
116
not supplied
122
120
119
127
116
123
116
S530D/S550D/S705D
116
104
106
107
109
115
108
103
S550D
110
111
116
126
128
101
102
114
113
S550D
110
S530D/S550D
112
115
117
104
106
107
108
116
104
108
116
114
103
110
103
102
109
109
101
102
101
110
113
S330
S705D
118
112

Ref. No.	Part No.	Description	Remark
101	X-3949-295-1	PANEL ASSY, FRONT (S330)	
101	X-3949-300-1	PANEL ASSY, FRONT (S530D)	
101	X-3949-301-1	PANEL ASSY, FRONT (S550D)	
101	X-3949-306-1	PANEL ASSY, FRONT (S705D: Hong Kong)	
101	X-3949-307-1	PANEL ASSY, FRONT (S705D: Singapore)	
102	3-053-483-01	WINDOW (FL)	
103	3-974-997-31	WINDOW, REMOTE CONTROL (S330/S530D/S550D)	
103	3-974-997-41	WINDOW, REMOTE CONTROL (S705D: Hong Kong)	
103	3-974-997-51	WINDOW, REMOTE CONTROL (S705D: Singapore)	
104	4-942-568-31	EMBLEM (NO.5), SONY (S705D: Hong Kong)	
104	4-942-568-61	EMBLEM (NO.5), SONY (S705D: Singapore)	
104	4-963-404-21	EMBLEM (5-A), SONY (S330/S530D/S550D)	
106	X-3949-309-1	BUTTON (VES) ASSY (S530D/S550D)	
106	X-3949-310-1	BUTTON (VES) ASSY (S705D: Hong Kong)	
106	X-3949-311-1	BUTTON (VES) ASSY (S705D: Singapore)	
107	3-053-479-01	BUTTON (PROG) (S530D/S550D)	
107	3-053-479-11	BUTTON (PROG) (S705D: Hong Kong)	
107	3-053-479-21	BUTTON (PROG) (S705D: Singapore)	
108	3-053-517-01	BUTTON (OPEN) (S330/S530D/S550D)	
108	3-053-517-11	BUTTON (OPEN) (S705D: Hong Kong)	
108	3-053-517-21	BUTTON (OPEN) (S705D: Singapore)	
109	3-053-480-01	BUTTON (PLAY) (S530D/S550D/S705D)	
109	3-053-480-11	BUTTON (PLAY) (S705D: Hong Kong)	
109	3-053-480-21	BUTTON (PLAY) (S705D: Singapore)	
110	3-053-504-01	CUSHION (S330/S530D/S550D)	
111	3-053-481-01	BEARING (ACS) (S550D)	
112	X-3949-294-1	RING ASSY, SHUTTLE (S530D/S550D)	
112	X-3949-312-1	RING ASSY, SHUTTLE (S705D: Hong Kong)	
112	X-3949-313-1	RING ASSY, SHUTTLE (S705D: Singapore)	
113	3-053-482-01	KNOB (ACS) (S550D)	
113	3-053-482-31	KNOB (ACS) (S705D: Hong Kong)	
113	3-053-482-41	KNOB (ACS) (S705D: Singapore)	
114	3-988-016-01	STICK, CURSOR (S530D/S550D)	
114	3-988-016-21	STICK, CURSOR (S705D: Hong Kong)	
114	3-988-016-61	STICK, CURSOR (S705D: Singapore)	
115	1-418-097-11	ENCODER, ROTARY (S530D/S550D/S705D)	
116	4-951-620-01	SCREW (2.6X8), +BVTP	
117	1-771-564-11	SWITCH, TACTILE (S330)	
118	3-053-496-31	STICK (L), CURSOR (S330)	
119	3-945-284-51	KNOB, VOLUME (S530D/S550D)	
119	3-945-284-81	KNOB, VOLUME (S705D: Singapore)	
119	3-945-284-71	KNOB, VOLUME (S705D: Hong Kong)	
120	2-118-268-01	NUT (M9), HEXAGON (S530D/S550D/S705D)	
* 121	3-684-436-01	PLATE, MOUNT (S530D/S550D/S705D)	
* 122	A-6065-219-A	HP-111 BOARD, COMPLETE (S530D/S550D)	
* 122	A-6065-257-A	HP-109 BOARD, COMPLETE (S705D)	
* 123	A-6065-221-A	SW-317 BOARD, COMPLETE (S530D/S550D)	
* 123	A-6065-243-A	SW-315 BOARD, COMPLETE (S705D)	
* 124	A-6065-218-A	FR-150 BOARD, COMPLETE (S530D)	
* 124	A-6065-237-A	FR-150 BOARD, COMPLETE (S550D)	
* 124	A-6065-241-A	FR-148 BOARD, COMPLETE (S705D)	
* 124	A-6065-262-A	FR-146 BOARD, COMPLETE (S330)	
125	3-054-216-01	PLATE (SL), GROUND	
126	3-053-512-01	PLATE (S), GROUND	
127	1-790-167-11	CABLE, FLEXIBLE FLAT (FMF-35)	
* 128	A-6065-220-A	FL-101 BOARD, COMPLETE (S530D: US, Canadian)	
* 128	A-6065-223-A	FL-101 BOARD, COMPLETE (S530D: E)	
* 128	A-6065-236-A	FL-101 BOARD, COMPLETE (S550D)	
* 128	A-6065-240-A	FL-99 BOARD, COMPLETE (S705D)	
* 128	A-6065-263-A	FL-97 BOARD, COMPLETE (S330)	

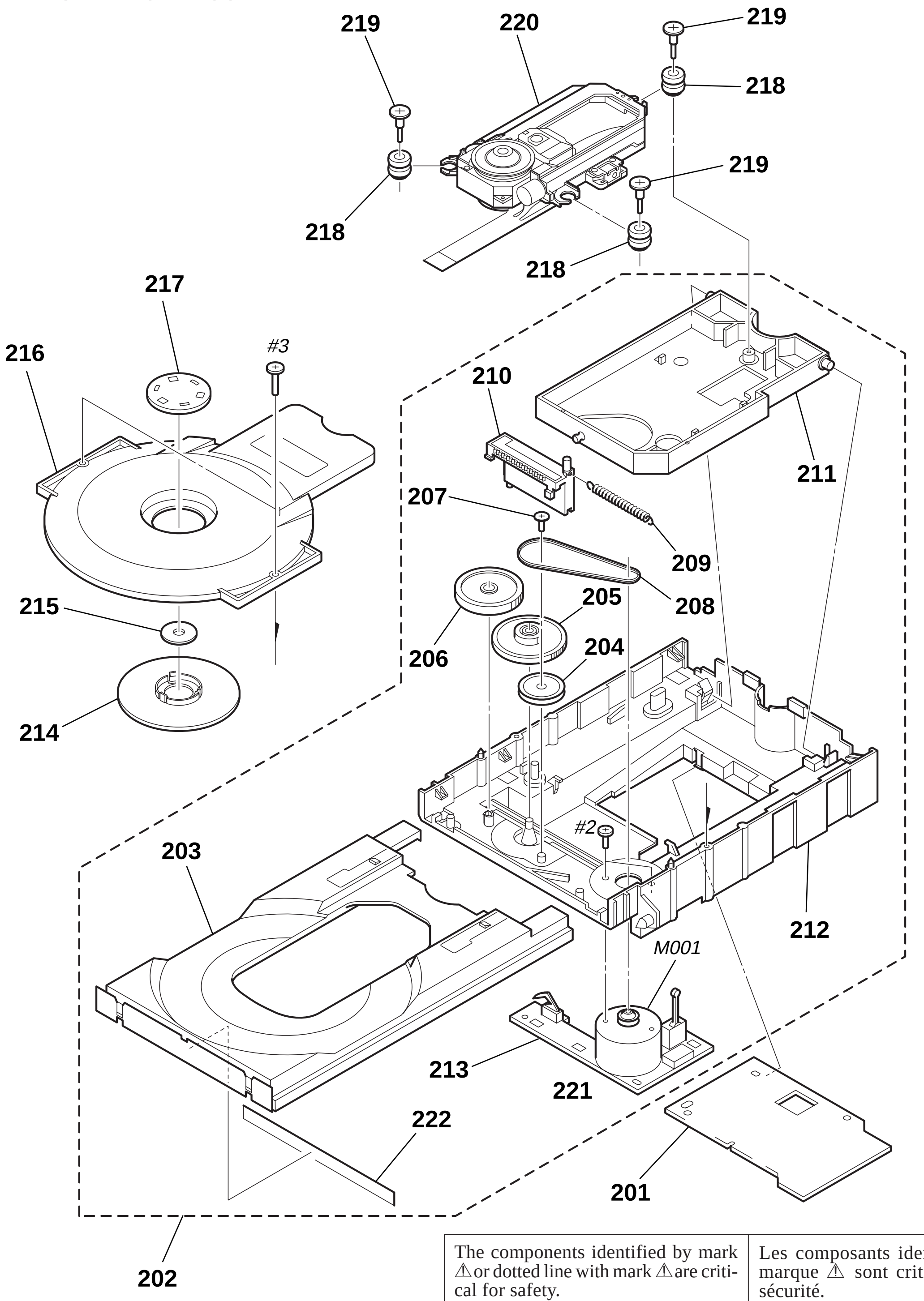
8-1-4. CHASSIS ASSEMBLY


163
not supplied
152
152
T901
Mechanism deck
152
164
152
152
not supplied
S705D
160
163
163
162
160
152
S705D
not supplied
163
S330
161
163
163
160
163
159
163
not supplied
157
S705D
152
152
163
not supplied
158
163
not supplied
S530D/S550D
157
155
156
154
S530D/S550D/S705D
B
153
A
not supplied
166
165
S530D/S550D/S705D
not supplied
165
not supplied
165
151
A
B
165
167

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
* 151	A-6065-216-A	MB-85 BOARD, COMPLETE (S530D: US, Canadian)	
* 151	A-6065-224-A	MB-85 BOARD, COMPLETE (S530D: E)	
* 151	A-6065-238-A	MB-85 BOARD, COMPLETE (S550D)	
* 151	A-6065-245-A	MB-82 BOARD, COMPLETE (S705D)	
* 151	A-6065-265-A	MB-85 BOARD, COMPLETE (S330)	
152	3-970-608-01	SUMITITE (B3), +BV	
153	1-790-166-11	CABLE, FLEXIBLE FLAT (FMT-25)	
154	1-790-163-11	CABLE, FLEXIBLE FLAT (FMA-7)	
155	1-790-164-11	CABLE, FLEXIBLE FLAT (FMA-8) (S530D/S550D/S705D)	
156	1-790-165-11	CABLE, FLEXIBLE FLAT (FMA-9) (S530D/S550D/S705D)	
* 157	3-669-610-00	SPACER	
* 158	A-6065-217-A	AU-212 BOARD, COMPLETE (S530D: US, Canadian/S550D)	
* 158	A-6065-222-A	AU-212 BOARD, COMPLETE (S530D: E)	
* 158	A-6065-260-A	AU-210 BOARD, COMPLETE (S705D)	
* 158	A-6065-264-A	AU-208 BOARD, COMPLETE (S330)	
* 159	1-468-358-21	POWER BLOCK (SRV902UC) (S330/S530D: US, Canadian/S550D)	
* 159	1-468-359-11	POWER BLOCK (HS-030SH) (S705D)	
* 159	1-468-359-21	POWER BLOCK (HS-030SF) (S530D: E)	
160	3-053-507-01	PANEL, REAR (S530D: US, Canadian/S550D)	
160	3-053-507-11	PANEL, REAR (S530D: E)	
160	3-053-507-61	PANEL, REAR (S330)	
160	X-3949-711-1	PANEL ASSY, REAR (S705D)	
⚠161	1-769-744-91	CORD, POWER (E, Hong Kong, Singapore)	
⚠161	1-783-531-31	CORD, POWER (US, Canadian)	
162	4-966-267-11	BUSHING (FBS001), CORD	
163	3-970-608-51	SUMITITE (B3), +BV	
* 164	A-6065-255-A	RY-12 BOARD, COMPLETE (S705D)	
165	3-055-791-01	SUMITITE (B3) (RING), +BV (S705D)	
165	3-970-608-01	SUMITITE (B3), +BV (S330/S530D/S550D)	
166	3-055-418-01	COVER, EJECT	
167	3-054-650-01	SPRING, EMC	
⚠T901	1-431-175-21	TRANSFORMER, POWER (S705D)	

8-1-5. MECHANISM DECK ASSEMBLY


219
220
219
218
219
218
218
217
216
#3
210
211
207
209
205
208
215
206
204
214
#2
203
212
M001
213
221
222
201
202

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
* 201	A-6065-214-A	TK-51 BOARD, COMPLETE	
202	A-6062-120-A	LOADING ASSY	
203	3-053-837-01	TRAY	
204	3-053-841-01	PULLEY GEAR	
205	3-053-840-01	CAM DRIVING GEAR	
206	3-053-839-01	TRAY DRIVING GEAR	
207	4-974-711-01	SCREW (2X5) (P TYIGHT), (+) PTTWH	
208	3-053-842-01	BELT	
209	3-053-849-01	SPRING, TENSION	
210	3-053-838-01	CHUCK CAM	
211	3-053-836-01	BASE UNIT HOLDER	
212	3-053-835-01	BASE, LOADING	
* 213	A-6065-012-A	MS-29 BOARD, COMPLETE	
214	3-053-845-01	CHUCK PLATE	
215	3-053-844-01	YOKE	
216	3-053-846-01	YOKE HOLDER	
217	3-053-848-01	CHUCK HOLDER	
218	3-053-847-01	INSULATOR	
219	4-981-923-01	SCREW (M), STEP	
⚠220	8-820-081-03	OPTICAL PICK-UP KHM-220AAA/J1RP	
221	3-053-843-01	MOTOR PULLEY	
222	3-055-097-01	SEAL, TRAY DUST	
M001	1-541-632-11	MOTOR, DC (LOADING)	

8-2. ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH
- Not all of the parts for POWER BLOCK (HS-030SF/030SH and SRV902UC) are listed.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description				Remark
*	A-6065-264-A	AU-208 BOARD, COMPLETE (S330)				
*	A-6065-217-A	AU-212 BOARD, COMPLETE (S530D: US, Canadian/S550D)				
*	A-6065-222-A	AU-212 BOARD, COMPLETE (S530D: E)				
	***********************************					
						(Ref.No. 2,000 Series)
		< CAPACITOR >				
C302	1-126-926-11	ELECT	1000uF	20%	10V	
C303	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	
C304	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	
C305	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C306	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C307	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C312	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C313	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	(S530D/S550D)
C314	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	(S530D/S550D)
C315	1-126-935-11	ELECT	470uF	20%	6.3V	(S530D/S550D)
C316	1-104-665-11	ELECT	100uF	20%	10V	(S530D/S550D)
C317	1-126-935-11	ELECT	470uF	20%	6.3V	(S530D/S550D)
C318	1-104-665-11	ELECT	100uF	20%	10V	(S530D/S550D)
C319	1-126-935-11	ELECT	470uF	20%	6.3V	(S530D/S550D)
C320	1-104-665-11	ELECT	100uF	20%	10V	(S530D/S550D)
C321	1-104-665-11	ELECT	100uF	20%	10V	
C322	1-104-665-11	ELECT	100uF	20%	10V	
C323	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C324	1-126-935-11	ELECT	470uF	20%	6.3V	
C325	1-126-935-11	ELECT	470uF	20%	6.3V	
C326	1-104-664-11	ELECT	47uF	20%	16V	
C327	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	
C328	1-104-664-11	ELECT	47uF	20%	16V	(S530D/S550D)
C329	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	(S530D/S550D)
C343	1-163-259-91	CERAMIC CHIP	220PF	5%	50V	
C344	1-126-960-11	ELECT	1uF	20%	50V	
C345	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	
C350	1-163-233-11	CERAMIC CHIP	18PF	5%	50V	
C351	1-163-233-11	CERAMIC CHIP	18PF	5%	50V	
C352	1-163-233-11	CERAMIC CHIP	18PF	5%	50V	
C353	1-163-233-11	CERAMIC CHIP	18PF	5%	50V	(S530D/S550D)
C354	1-163-233-11	CERAMIC CHIP	18PF	5%	50V	(S530D/S550D)
C355	1-163-233-11	CERAMIC CHIP	18PF	5%	50V	(S530D/S550D)
C401	1-104-665-11	ELECT	100uF	20%	10V	(S530D/S550D)
C404	1-104-665-11	ELECT	100uF	20%	10V	(S530D/S550D)
C431	1-104-664-11	ELECT	47uF	20%	16V	
C432	1-104-664-11	ELECT	47uF	20%	16V	
C433	1-104-665-11	ELECT	100uF	20%	10V	
C434	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	
C435	1-104-665-11	ELECT	100uF	20%	10V	
C436	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C437	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	
C438	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C439	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C440	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	
C442	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C443	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	
C447	1-136-850-11	FILM	0.1uF	5%	63V	
C448	1-104-664-11	ELECT	47uF	20%	16V	
C449	1-104-664-11	ELECT	47uF	20%	16V	
C450	1-136-850-11	FILM	0.1uF	5%	63V	
C501	1-104-664-11	ELECT	47uF	20%	16V	(S530D/S550D)
C502	1-104-664-11	ELECT	47uF	20%	16V	(S530D/S550D)
C503	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	(S530D/S550D)
C504	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	(S530D/S550D)
C505	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	(S530D/S550D)
C506	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	(S530D/S550D)
C507	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	(S530D/S550D)
C508	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	(S530D/S550D)

Ref. No.	Part No.	Description	Remark
C509	1-136-850-11	FILM 0.1uF 5% 63V	(S530D/S550D)
C512	1-136-850-11	FILM 0.1uF 5% 63V	(S530D/S550D)
C513	1-104-664-11	ELECT 47uF 20% 16V	(S530D/S550D)
C514	1-104-664-11	ELECT 47uF 20% 16V	(S530D/S550D)
C541	1-104-664-11	ELECT 47uF 20% 16V	(S530D/S550D)
C542	1-104-664-11	ELECT 47uF 20% 16V	(S530D/S550D)
C543	1-163-130-00	CERAMIC CHIP 360PF 5% 50V	(S530D/S550D)
C544	1-163-275-11	CERAMIC CHIP 0.001uF 5% 50V	(S530D/S550D)
C545	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(S530D/S550D)
C546	1-163-130-00	CERAMIC CHIP 360PF 5% 50V	(S530D/S550D)
C547	1-163-275-11	CERAMIC CHIP 0.001uF 5% 50V	(S530D/S550D)
C548	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(S530D/S550D)
C549	1-104-664-11	ELECT 47uF 20% 16V	(S530D/S550D)
C550	1-104-664-11	ELECT 47uF 20% 16V	(S530D/S550D)
C571	1-104-664-11	ELECT 47uF 20% 16V	(S530D/S550D)
C572	1-104-664-11	ELECT 47uF 20% 16V	(S530D/S550D)
C573	1-163-130-00	CERAMIC CHIP 360PF 5% 50V	(S530D/S550D)
C574	1-163-020-00	CERAMIC CHIP 0.0082uF 10% 50V	(S530D/S550D)
C575	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(S530D/S550D)
C576	1-163-145-00	CERAMIC CHIP 0.0015uF 5% 50V	(S530D/S550D)
C577	1-163-275-11	CERAMIC CHIP 0.001uF 5% 50V	(S530D/S550D)
C578	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(S530D/S550D)
C579	1-104-664-11	ELECT 47uF 20% 16V	(S530D/S550D)
C580	1-104-664-11	ELECT 47uF 20% 16V	(S530D/S550D)

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
CN301	1-785-698-11	CONNECTOR, FFC/FPC 28P	
CN302	1-785-695-11	CONNECTOR, FFC/FPC 13P (S530D/S550D)	
CN303	1-785-694-11	CONNECTOR, FFC/FPC 7P (S530D/S550D)	
CN401	1-564-002-11	PIN, CONNECTOR 3P (S530D/S550D)	

< DIODE >

Ref. No.	Part No.	Description	Remark
D301	8-719-988-61	DIODE 1SS355TE-17	
D304	8-719-071-15	DIODE HZM6.8ZWA1TL	
D305	8-719-071-15	DIODE HZM6.8ZWA1TL	
D306	8-719-071-15	DIODE HZM6.8ZWA1TL	
D307	8-719-071-15	DIODE HZM6.8ZWA1TL	
D308	8-719-988-61	DIODE 1SS355TE-17	
D431	8-719-988-61	DIODE 1SS355TE-17	
D432	8-719-988-61	DIODE 1SS355TE-17	
D525	8-719-988-61	DIODE 1SS355TE-17 (S530D/S550D)	
D526	8-719-988-61	DIODE 1SS355TE-17 (S530D/S550D)	
D551	8-719-988-61	DIODE 1SS355TE-17 (S530D/S550D)	
D552	8-719-988-61	DIODE 1SS355TE-17 (S530D/S550D)	
D561	8-719-071-15	DIODE HZM6.8ZWA1TL	(S330/S530D: US, Canadian/S550D)
D591	8-719-988-61	DIODE 1SS355TE-17 (S530D/S550D)	
D592	8-719-988-61	DIODE 1SS355TE-17 (S530D/S550D)	

< EARTH TERMINAL>

Ref. No.	Part No.	Description	Remark
* ET301	1-537-738-21	TERMINAL, EARTH	
* ET302	1-537-738-21	TERMINAL, EARTH	
* ET303	1-537-738-21	TERMINAL, EARTH	

< FERRITE BEAD >

Ref. No.	Part No.	Description	Remark
FB305	1-414-553-11	FERRITE 0UH	
FB306	1-414-553-11	FERRITE 0UH	
FB307	1-414-553-11	FERRITE 0UH	
FB308	1-414-553-11	FERRITE 0UH	
FB310	1-414-553-11	FERRITE 0UH	
FB311	1-414-553-11	FERRITE 0UH	
FB312	1-414-553-11	FERRITE 0UH	
FB313	1-414-553-11	FERRITE 0UH	
FB314	1-414-553-11	FERRITE 0UH	
FB315	1-414-553-11	FERRITE 0UH	
FB316	1-414-553-11	FERRITE 0UH	
FB317	1-414-553-11	FERRITE 0UH	
FB318	1-414-553-11	FERRITE 0UH	
FB319	1-414-553-11	FERRITE 0UH	
FB320	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB321	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB322	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB341	1-414-135-11	FERRITE 0UH	
FB342	1-414-553-11	FERRITE 0UH	
FB401	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB402	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB403	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB404	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB405	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB406	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB407	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB408	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB409	1-414-553-11	FERRITE 0UH (S530D/S550D)	
FB561	1-414-553-11	FERRITE 0UH	(S330/S530D: US, Canadian/S550D)
FB562	1-414-553-11	FERRITE 0UH	(S330/S530D: US, Canadian/S550D)

< IC >

Ref. No.	Part No.	Description	Remark
IC301	8-759-701-58	IC NJM78M08FA	
IC302	8-759-982-54	IC RC79M09FA	
IC303	8-759-563-79	IC BA7660F-E2 (S530D/S550D)	
IC321	8-759-563-79	IC BA7660F-E2	
IC401	8-759-909-71	IC BA4558F (S530D/S550D)	
IC431	8-759-909-71	IC BA4558F	
IC502	8-759-909-71	IC BA4558F (S530D/S550D)	
IC505	8-749-921-12	IC GP1F32T	
IC541	8-759-909-71	IC BA4558F (S530D/S550D)	
IC571	8-759-909-71	IC BA4558F (S530D/S550D)	

Ref. No.	Part No.	Description	Remark
		< JACK >	
J303	1-784-675-21	JACK, PIN 3P (COMPONENT VIDEO OUT)	(S530D/S550D)
J501	1-764-188-21	JACK (SMALL TYPE) (DIA. 3.5) (S-LINK)	(S330/S530D: US, Canadian/S550D)
J502	1-779-382-11	JACK, PIN 1P (COAXIAL)	
J505	1-785-535-11	JACK BLOCK, PIN (LINE OUT/S VIDEO OUT)	
J508	1-785-536-11	JACK, PIN (6P) (5.1CH OUTPUT)	(S530D/S550D)
		< JUMPER RESISTOR >	
JR400	1-216-296-91	SHORT 0	(S330)
JR400	1-216-295-91	SHORT 0	(S530D/S550D)
JR401	1-216-295-91	SHORT 0	(S530D/S550D)
JR401	1-216-296-91	SHORT 0	(S330)
JR402	1-216-295-91	SHORT 0	(S530D/S550D)
JR402	1-216-296-91	SHORT 0	(S330)
JR403	1-216-295-91	SHORT 0	
JR404	1-216-295-91	SHORT 0	
JR405	1-216-296-91	SHORT 0	
JR406	1-216-295-91	SHORT 0	
JR407	1-216-296-91	SHORT 0	
JR408	1-216-295-91	SHORT 0	(S530D/S550D)
JR408	1-216-296-91	SHORT 0	(S330)
JR409	1-216-295-91	SHORT 0	(S530D/S550D)
JR409	1-216-296-91	SHORT 0	(S330)
JR410	1-216-296-91	SHORT 0	(S530D/S550D)
JR410	1-216-295-91	SHORT 0	(S330)
JR411	1-216-296-91	SHORT 0	
JR412	1-216-296-91	SHORT 0	
JR413	1-216-296-91	SHORT 0	
JR414	1-216-296-91	SHORT 0	
JR415	1-216-295-91	SHORT 0	(S530D/S550D)
JR415	1-216-296-91	SHORT 0	(S330)
JR416	1-216-296-91	SHORT 0	
JR417	1-216-295-91	SHORT 0	(S530D/S550D)
JR417	1-216-296-91	SHORT 0	(S330)
JR418	1-216-296-91	SHORT 0	(S530D/S550D)
JR418	1-216-295-91	SHORT 0	(S330)
JR419	1-216-296-91	SHORT 0	
JR420	1-216-295-91	SHORT 0	(S530D/S550D)
JR420	1-216-296-91	SHORT 0	(S330)
JR421	1-216-296-91	SHORT 0	
JR422	1-216-296-91	SHORT 0	
JR423	1-216-295-91	SHORT 0	(S530D/S550D)
JR424	1-216-296-91	SHORT 0	(S530D/S550D)
JR424	1-216-295-91	SHORT 0	(S330)
JR425	1-216-295-91	SHORT 0	
JR426	1-216-295-91	SHORT 0	
JR427	1-216-295-91	SHORT 0	
JR428	1-216-295-91	SHORT 0	
JR429	1-216-296-91	SHORT 0	
JR430	1-216-296-91	SHORT 0	
JR431	1-216-295-91	SHORT 0	
JR432	1-216-295-91	SHORT 0	
JR433	1-216-295-91	SHORT 0	(S530D/S550D)
JR433	1-216-296-91	SHORT 0	(S330)
JR434	1-216-295-91	SHORT 0	(S530D/S550D)
JR434	1-216-296-91	SHORT 0	(S330)
JR435	1-216-296-91	SHORT 0	(S330)
JR436	1-216-296-91	SHORT 0	(S330)

Ref. No.	Part No.	Description	Remark
		< COIL >	
L301	1-412-953-11	INDUCTOR 15uH	
L302	1-412-953-11	INDUCTOR 15uH	
L303	1-412-953-11	INDUCTOR 15uH	
L304	1-412-953-11	INDUCTOR 15uH	(S530D/S550D)
L305	1-412-953-11	INDUCTOR 15uH	(S530D/S550D)
L306	1-412-953-11	INDUCTOR 15uH	(S530D/S550D)
L307	1-412-963-11	INDUCTOR 100uH	(S530D/S550D)
L321	1-412-963-11	INDUCTOR 100uH	
		< TRANSISTOR >	
Q301	8-729-424-08	TRANSISTOR UN2111	
Q303	8-729-216-22	TRANSISTOR 2SA1162	
Q304	8-729-421-19	TRANSISTOR UN2213	
Q305	8-729-424-08	TRANSISTOR UN2111	
Q306	8-729-424-08	TRANSISTOR UN2111	(S530D/S550D)
Q307	8-729-424-08	TRANSISTOR UN2111	(S530D/S550D)
Q308	8-729-424-08	TRANSISTOR UN2111	(S530D/S550D)
Q309	8-729-424-08	TRANSISTOR UN2111	(S530D/S550D)
Q310	8-729-424-08	TRANSISTOR UN2111	(S530D/S550D)
Q311	8-729-424-08	TRANSISTOR UN2111	(S530D/S550D)
Q314	8-729-424-08	TRANSISTOR UN2111	(S530D/S550D)
Q315	8-729-421-19	TRANSISTOR UN2213	(S530D/S550D)
Q321	8-729-421-19	TRANSISTOR UN2213	
Q322	8-729-424-08	TRANSISTOR UN2111	
Q341	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q401	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S530D/S550D)
Q402	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S530D/S550D)
Q431	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S530D/S550D)
Q432	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S530D/S550D)
Q433	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S330)
Q434	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S330)
Q435	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q436	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q503	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S530D/S550D)
Q504	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S530D/S550D)
Q543	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S530D/S550D)
Q544	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S530D/S550D)
Q573	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S530D/S550D)
Q574	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	(S530D/S550D)
Q575	8-729-424-08	TRANSISTOR UN2111	(S330)
		< RESISTOR >	
R301	1-216-042-00	METAL CHIP 510 5% 1/10W	
R302	1-216-042-00	METAL CHIP 510 5% 1/10W	
R303	1-216-042-00	METAL CHIP 510 5% 1/10W	
R304	1-216-021-00	METAL CHIP 68 5% 1/10W	(S530D/S550D)
R305	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R306	1-216-021-00	METAL CHIP 68 5% 1/10W	(S530D/S550D)
R307	1-216-073-00	METAL CHIP 10K 5% 1/10W	

Ref. No.	Part No.	Description				Remark
R308	1-216-021-00	METAL CHIP	68	5%	1/10W	(S530D/S550D)
R309	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R310	1-216-042-00	METAL CHIP	510	5%	1/10W	(S530D/S550D)
R311	1-216-042-00	METAL CHIP	510	5%	1/10W	(S530D/S550D)
R312	1-216-042-00	METAL CHIP	510	5%	1/10W	(S530D/S550D)
R313	1-216-097-91	RES,CHIP	100K	5%	1/10W	(S530D/S550D)
R314	1-216-097-91	RES,CHIP	100K	5%	1/10W	(S530D/S550D)
R315	1-216-097-91	RES,CHIP	100K	5%	1/10W	(S530D/S550D)
R316	1-216-097-91	RES,CHIP	100K	5%	1/10W	(S530D/S550D)
R317	1-216-073-00	METAL CHIP	10K	5%	1/10W	(S530D/S550D)
R318	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R319	1-216-097-91	RES,CHIP	100K	5%	1/10W	(S530D/S550D)
R320	1-216-097-91	RES,CHIP	100K	5%	1/10W	(S530D/S550D)
R321	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R322	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R323	1-216-021-00	METAL CHIP	68	5%	1/10W	
R324	1-216-021-00	METAL CHIP	68	5%	1/10W	
R325	1-216-021-00	METAL CHIP	68	5%	1/10W	
R326	1-216-021-00	METAL CHIP	68	5%	1/10W	
R327	1-216-021-00	METAL CHIP	68	5%	1/10W	
R328	1-216-021-00	METAL CHIP	68	5%	1/10W	
R330	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R333	1-216-049-91	RES,CHIP	1K	5%	1/10W	(S530D/S550D)
R334	1-216-097-91	RES,CHIP	100K	5%	1/10W	(S530D/S550D)
R341	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R342	1-216-063-91	RES,CHIP	3.9K	5%	1/10W	
R343	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R344	1-216-033-00	METAL CHIP	220	5%	1/10W	
R345	1-216-021-00	METAL CHIP	68	5%	1/10W	
R346	1-216-025-91	RES,CHIP	100	5%	1/10W	
R347	1-216-295-91	SHORT	0			
R348	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R401	1-216-085-00	METAL CHIP	33K	5%	1/10W	(S530D/S550D)
R402	1-216-085-00	METAL CHIP	33K	5%	1/10W	(S530D/S550D)
R403	1-216-085-00	METAL CHIP	33K	5%	1/10W	(S530D/S550D)
R404	1-216-085-00	METAL CHIP	33K	5%	1/10W	(S530D/S550D)
R405	1-216-085-00	METAL CHIP	33K	5%	1/10W	(S530D/S550D)
R406	1-216-077-00	METAL CHIP	15K	5%	1/10W	(S530D/S550D)
R407	1-216-077-00	METAL CHIP	15K	5%	1/10W	(S530D/S550D)
R408	1-216-085-00	METAL CHIP	33K	5%	1/10W	(S530D/S550D)
R409	1-216-025-91	RES,CHIP	100	5%	1/10W	(S530D/S550D)
R410	1-216-025-91	RES,CHIP	100	5%	1/10W	(S530D/S550D)
R411	1-216-049-91	RES,CHIP	1K	5%	1/10W	(S530D/S550D)
R412	1-216-049-91	RES,CHIP	1K	5%	1/10W	(S530D/S550D)
R431	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R432	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R433	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R434	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R435	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R436	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R437	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	(S530D/S550D)
R438	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	(S530D/S550D)
R439	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R440	1-216-295-91	SHORT	0 (S530D/S550D)			
R441	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R443	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R444	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R445	1-216-049-91	RES,CHIP	1K	5%	1/10W	(S530D/S550D)
R446	1-216-047-91	RES,CHIP	820	5%	1/10W	(S530D/S550D)
R447	1-216-049-91	RES,CHIP	1K	5%	1/10W	(S530D/S550D)
R448	1-216-047-91	RES,CHIP	820	5%	1/10W	(S530D/S550D)
R449	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R450	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R451	1-216-041-00	METAL CHIP	470	5%	1/10W	
R452	1-216-041-00	METAL CHIP	470	5%	1/10W	
R455	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R456	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R457	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R458	1-216-041-00	METAL CHIP	470	5%	1/10W	
R459	1-216-041-00	METAL CHIP	470	5%	1/10W	
R460	1-216-041-00	METAL CHIP	470	5%	1/10W	
R461	1-216-041-00	METAL CHIP	470	5%	1/10W	
R462	1-216-056-00	RES,CHIP	2K	5%	1/10W	(S330)
R463	1-216-049-91	RES,CHIP	1K	5%	1/10W	(S330)
R464	1-216-049-91	RES,CHIP	1K	5%	1/10W	(S330)
R465	1-216-056-00	RES,CHIP	2K	5%	1/10W	(S330)
R475	1-216-295-91	SHORT	0 (S330)			
R476	1-216-295-91	SHORT	0 (S330)			
R477	1-216-295-91	SHORT	0 (S330)			
R478	1-216-295-91	SHORT	0 (S330)			
R479	1-216-295-91	SHORT	0 (S330)			
R501	1-216-109-00	METAL CHIP	330K	5%	1/10W	(S530D/S550D)
R502	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	(S530D/S550D)
R503	1-216-109-00	METAL CHIP	330K	5%	1/10W	(S530D/S550D)
R504	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	(S530D/S550D)
R510	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	(S530D/S550D)

Ref. No.	Part No.	Description			Remark
R511	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R512	1-216-071-00	METAL CHIP	8.2K	5%	1/10W (S530D/S550D)
R513	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R514	1-216-071-00	METAL CHIP	8.2K	5%	1/10W (S530D/S550D)
R517	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (S530D/S550D)
R519	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (S530D/S550D)
R520	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R521	1-216-109-00	METAL CHIP	330K	5%	1/10W (S530D/S550D)
R522	1-216-109-00	METAL CHIP	330K	5%	1/10W (S530D/S550D)
R523	1-216-041-00	METAL CHIP	470	5%	1/10W (S530D/S550D)
R524	1-216-041-00	METAL CHIP	470	5%	1/10W (S530D/S550D)
R525	1-216-049-91	RES,CHIP	1K	5%	1/10W (S530D/S550D)
R526	1-216-025-91	RES,CHIP	100	5%	1/10W (S530D/S550D)
R527	1-216-025-91	RES,CHIP	100	5%	1/10W (S530D/S550D)
R528	1-216-049-91	RES,CHIP	1K	5%	1/10W (S530D/S550D)
R541	1-216-109-00	METAL CHIP	330K	5%	1/10W (S530D/S550D)
R542	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R543	1-216-109-00	METAL CHIP	330K	5%	1/10W (S530D/S550D)
R544	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R545	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R546	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R547	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R548	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R549	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (S530D/S550D)
R553	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (S530D/S550D)
R555	1-216-109-00	METAL CHIP	330K	5%	1/10W (S530D/S550D)
R556	1-216-109-00	METAL CHIP	330K	5%	1/10W (S530D/S550D)
R557	1-216-041-00	METAL CHIP	470	5%	1/10W (S530D/S550D)
R558	1-216-041-00	METAL CHIP	470	5%	1/10W (S530D/S550D)
R559	1-216-049-91	RES,CHIP	1K	5%	1/10W (S530D/S550D)
R560	1-216-025-91	RES,CHIP	100	5%	1/10W (S530D/S550D)
R561	1-216-025-91	RES,CHIP	100	5%	1/10W (S530D/S550D)
R562	1-216-049-91	RES,CHIP	1K	5%	1/10W (S530D/S550D)
R563	1-216-049-91	RES,CHIP	1K	5%	1/10W (S330/S530D: US, Canadian/S550D)
R564	1-216-295-91	SHORT	0 (S530D/S550D)		
R569	1-216-295-91	SHORT	0 (S530D/S550D)		
R571	1-216-109-00	METAL CHIP	330K	5%	1/10W (S530D/S550D)
R572	1-216-109-00	METAL CHIP	330K	5%	1/10W (S530D/S550D)
R573	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R574	1-216-077-00	METAL CHIP	15K	5%	1/10W (S530D/S550D)
R575	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R576	1-216-077-00	METAL CHIP	15K	5%	1/10W (S530D/S550D)
R577	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (S530D/S550D)
R578	1-216-061-00	METAL CHIP	3.3K	5%	1/10W (S530D/S550D)
R579	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (S530D/S550D)
R580	1-216-079-00	METAL CHIP	18K	5%	1/10W (S530D/S550D)
R585	1-216-109-00	METAL CHIP	330K	5%	1/10W (S530D/S550D)
R586	1-216-109-00	METAL CHIP	330K	5%	1/10W (S530D/S550D)
R587	1-216-041-00	METAL CHIP	470	5%	1/10W (S530D/S550D)
R588	1-216-041-00	METAL CHIP	470	5%	1/10W (S530D/S550D)
R589	1-216-049-91	RES,CHIP	1K	5%	1/10W (S530D/S550D)
R590	1-216-025-91	RES,CHIP	100	5%	1/10W (S530D/S550D)
R591	1-216-025-91	RES,CHIP	100	5%	1/10W (S530D/S550D)
R592	1-216-049-91	RES,CHIP	1K	5%	1/10W (S530D/S550D)
R593	1-216-295-91	SHORT	0 (S530D/S550D)		
R598	1-216-295-91	SHORT	0 (S530D/S550D)		

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* A-6065-260-A AU-210 BOARD, COMPLETE (S705D)

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(Ref.No. 3,000 Series)

< CAPACITOR >

Ref. No.	Part No.	Description			Remark
C302	1-104-665-11	ELECT	100uF	20%	10V
C303	1-104-665-11	ELECT	100uF	20%	10V
C304	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C305	1-126-935-11	ELECT	470uF	20%	6.3V
C306	1-126-935-11	ELECT	470uF	20%	6.3V
C307	1-104-664-11	ELECT	47uF	20%	25V
C309	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C310	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C311	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C312	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C313	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C314	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C315	1-163-259-91	CERAMIC CHIP	220PF	5%	50V

Ref. No.	Part No.	Description			Remark
C316	1-126-960-11	ELECT	1uF	20%	50V
C317	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C318	1-104-665-11	ELECT	100uF	20%	10V
C319	1-104-665-11	ELECT	100uF	20%	10V
C320	1-104-665-11	ELECT	100uF	20%	10V
C321	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C322	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C323	1-126-935-11	ELECT	470uF	20%	6.3V
C324	1-126-935-11	ELECT	470uF	20%	6.3V
C325	1-126-935-11	ELECT	470uF	20%	6.3V
C326	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C327	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C328	1-104-664-11	ELECT	47uF	20%	25V
C330	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C331	1-126-967-11	ELECT	47uF	20%	25V
C401	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C402	1-126-926-11	ELECT	1000uF	20%	10V
C403	1-128-204-11	ELECT	470uF	20%	63V
C404	1-128-204-11	ELECT	470uF	20%	63V
C405	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C406	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C407	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C408	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C409	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C410	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C411	1-119-828-31	ELECT	100uF	20%	50V
C412	1-119-828-31	ELECT	100uF	20%	50V
C413	1-126-967-11	ELECT	47uF	20%	25V
C414	1-126-967-11	ELECT	47uF	20%	25V
C415	1-126-967-11	ELECT	47uF	20%	25V
C416	1-126-967-11	ELECT	47uF	20%	25V
C417	1-126-967-11	ELECT	47uF	20%	25V
C418	1-126-967-11	ELECT	47uF	20%	25V
C419	1-136-811-11	FILM	330PF	5%	100V
C420	1-117-793-11	MYLAR	330PF	5%	50V
C421	1-117-793-11	MYLAR	330PF	5%	50V
C422	1-106-343-00	MYLAR	1000PF	5%	200V
C423	1-136-811-11	FILM	330PF	5%	100V
C424	1-117-793-11	MYLAR	330PF	5%	50V
C425	1-117-793-11	MYLAR	330PF	5%	50V
C426	1-117-793-11	MYLAR	330PF	5%	50V
C427	1-127-713-21	FILM	10000PF	5%	50V
C428	1-130-483-00	MYLAR	0.01uF	5%	50V
C429	1-130-484-00	MYLAR	0.012uF	5%	50V
C430	1-136-850-11	FILM	0.1uF	5%	63V
C431	1-127-713-21	FILM	10000PF	5%	50V
C432	1-113-577-11	ELECT	47uF	20%	16V
C433	1-113-577-11	ELECT	47uF	20%	16V
C434	1-130-483-00	MYLAR	0.01uF	5%	50V
C437	1-130-484-00	MYLAR	0.012uF	5%	50V
C440	1-130-484-00	MYLAR	0.012uF	5%	50V
C443	1-125-853-21	FILM	470PF	5%	50V
C444	1-130-467-00	MYLAR	470PF	5%	50V
C445	1-106-343-00	MYLAR	1000PF	5%	200V
C446	1-130-483-00	MYLAR	0.01uF	5%	50V
C447	1-125-853-21	FILM	470PF	5%	50V
C448	1-130-467-00	MYLAR	470PF	5%	50V
C449	1-106-343-00	MYLAR	1000PF	5%	200V
C450	1-106-343-00	MYLAR	1000PF	5%	200V
C451	1-119-828-31	ELECT	100uF	20%	50V

Ref. No.	Part No.	Description			Remark
C452	1-136-850-11	FILM	0.1uF	5%	63V
C453	1-136-850-11	FILM	0.1uF	5%	63V
C454	1-119-828-31	ELECT	100uF	20%	50V
C455	1-124-673-11	ELECT	100uF	20%	10V
C456	1-124-673-11	ELECT	100uF	20%	10V
C457	1-124-673-11	ELECT	100uF	20%	10V
C458	1-124-673-11	ELECT	100uF	20%	10V
C459	1-124-673-11	ELECT	100uF	20%	10V
C460	1-124-673-11	ELECT	100uF	20%	10V
C461	1-104-665-11	ELECT	100uF	20%	25V
C464	1-104-665-11	ELECT	100uF	20%	25V
C465	1-128-200-11	ELECT	47uF	20%	63V
C466	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C467	1-128-200-11	ELECT	47uF	20%	63V
C468	1-136-850-11	FILM	0.1uF	5%	63V
C469	1-126-967-11	ELECT	47uF	20%	25V
C470	1-136-850-11	FILM	0.1uF	5%	63V
C471	1-136-850-11	FILM	0.1uF	5%	63V
C472	1-136-850-11	FILM	0.1uF	5%	63V
C473	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C474	1-136-850-11	FILM	0.1uF	5%	63V
C475	1-136-850-11	FILM	0.1uF	5%	63V
C485	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C486	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C487	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C488	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C489	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C491	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
		< CONNECTOR >			
CN301	1-564-002-11	PIN, CONNECTOR 3P			
* CN401	1-564-241-11	PIN, CONNECTOR (B4P-VH) 4P			
CN402	1-785-698-11	CONNECTOR, FFC/FPC 28P			
CN403	1-785-695-11	CONNECTOR, FFC/FPC 13P			
CN404	1-506-473-11	PIN, CONNECTOR 8P			
CN405	1-785-694-11	CONNECTOR, FFC/FPC 7P			
* CN407	1-564-001-11	PIN, CONNECTOR 2P			
		< DIODE >			
D301	8-719-071-15	DIODE	HZM6.8ZWA1TL		
D302	8-719-071-15	DIODE	HZM6.8ZWA1TL		
D303	8-719-071-15	DIODE	HZM6.8ZWA1TL		
D304	8-719-071-15	DIODE	HZM6.8ZWA1TL		
D401	8-719-210-21	DIODE	11EQS04		
D402	8-719-210-21	DIODE	11EQS04		
D403	8-719-210-21	DIODE	11EQS04		
D404	8-719-210-21	DIODE	11EQS04		
D405	8-719-988-61	DIODE	1SS355TE-17		
D406	8-719-988-61	DIODE	1SS355TE-17		
D407	8-719-988-61	DIODE	1SS355TE-17		
D408	8-719-988-61	DIODE	1SS355TE-17		
D409	8-719-988-61	DIODE	1SS355TE-17		
D410	8-719-988-61	DIODE	1SS355TE-17		
D411	8-719-115-87	DIODE	RD9.1JS-T4AB2		
D421	8-719-988-61	DIODE	1SS355TE-17		
D422	8-719-988-61	DIODE	1SS355TE-17		
D423	8-719-988-61	DIODE	1SS355TE-17		
D424	8-719-988-61	DIODE	1SS355TE-17		
D425	8-719-988-61	DIODE	1SS355TE-17		

Ref. No.	Part No.	Description	Remark
		< EARTH TERMINAL >	
* ET401	1-537-738-21	TERMINAL, EARTH	
* ET402	1-537-738-21	TERMINAL, EARTH	
* ET403	1-537-738-21	TERMINAL, EARTH	
		< FERRITE BEAD >	
FB301	1-414-135-11	FERRITE 0UH	
FB302	1-414-553-11	FERRITE 0UH	
FB303	1-414-553-11	FERRITE 0UH	
FB304	1-414-553-11	FERRITE 0UH	
FB305	1-414-553-11	FERRITE 0UH	
FB306	1-414-553-11	FERRITE 0UH	
FB307	1-414-553-11	FERRITE 0UH	
FB308	1-414-553-11	FERRITE 0UH	
FB309	1-414-553-11	FERRITE 0UH	
FB310	1-414-553-11	FERRITE 0UH	
FB311	1-414-553-11	FERRITE 0UH	
FB312	1-414-553-11	FERRITE 0UH	
FB313	1-414-553-11	FERRITE 0UH	
FB314	1-414-553-11	FERRITE 0UH	
FB315	1-414-553-11	FERRITE 0UH	
FB316	1-414-553-11	FERRITE 0UH	
FB317	1-414-553-11	FERRITE 0UH	
FB318	1-414-553-11	FERRITE 0UH	
FB319	1-414-553-11	FERRITE 0UH	
FB320	1-414-553-11	FERRITE 0UH	
FB321	1-414-553-11	FERRITE 0UH	
FB401	1-414-553-11	FERRITE 0UH	
FB402	1-414-553-11	FERRITE 0UH	
		< IC >	
IC301	8-759-563-79	IC BA7660F-E2	
IC302	8-759-563-79	IC BA7660F-E2	
IC303	8-749-921-12	IC GP1F32T	
IC401	8-759-008-67	IC MC14066BF	
IC403	8-759-059-79	IC BA15532	
IC404	8-759-059-79	IC BA15532	
IC405	8-759-634-51	IC M5218AP	
IC406	8-759-634-51	IC M5218AP	
IC407	8-759-971-80	IC AD712JN	
IC408	8-759-710-59	IC NJM4580D-D	
IC409	8-759-710-59	IC NJM4580D-D	
IC410	8-759-710-59	IC NJM4580D-D	
IC411	8-759-711-85	IC NJM4580E-D	
IC412	8-759-711-85	IC NJM4580E-D	
IC415	8-759-604-35	IC M5F78M05	
		< JACK >	
J301	1-779-382-21	JACK, PIN 1P (COAXIAL)	
J302	1-784-675-11	JACK, PIN 3P (COMPONENT VIDEO OUT)	
J303	1-785-489-11	JACK, PIN 6P (5.1CH OUTPUT)	
J304	1-778-064-11	JACK, PIN 4P (AUDIO OUT)	
J305	1-785-538-11	JACK, PIN (2P) (VIDEO OUT)	
J306	1-694-484-11	TERMINAL, S (2P.V) (S VIDEO OUT)	
		< COIL >	
L301	1-412-963-11	INDUCTOR 100uH	
L303	1-412-963-11	INDUCTOR 100uH	
L401	1-412-953-11	INDUCTOR 15uH	
L402	1-412-953-11	INDUCTOR 15uH	

Ref. No.	Part No.	Description	Remark
L403	1-412-953-11	INDUCTOR 15uH	
L404	1-412-953-11	INDUCTOR 15uH	
L405	1-412-953-11	INDUCTOR 15uH	
L406	1-412-953-11	INDUCTOR 15uH	
		< TRANSISTOR >	
Q301	8-729-421-19	TRANSISTOR UN2213	
Q302	8-729-424-08	TRANSISTOR UN2111	
Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q401	8-729-424-08	TRANSISTOR UN2111	
Q402	8-729-424-08	TRANSISTOR UN2111	
Q403	8-729-424-08	TRANSISTOR UN2111	
Q404	8-729-424-08	TRANSISTOR UN2111	
Q405	8-729-216-22	TRANSISTOR 2SA1162	
Q410	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q411	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q412	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q413	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q414	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q415	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q416	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q417	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q418	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q419	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO	
Q420	8-729-141-10	TRANSISTOR 2SA985A	
Q421	8-729-141-58	TRANSISTOR 2SC2275A-QP	
Q422	8-729-224-62	TRANSISTOR 2SK246-GR	
Q423	8-729-421-19	TRANSISTOR UN2213	
Q424	8-729-421-19	TRANSISTOR UN2213	
Q431	8-729-424-08	TRANSISTOR UN2111	
Q432	8-729-424-08	TRANSISTOR UN2111	
Q433	8-729-424-08	TRANSISTOR UN2111	
Q434	8-729-424-08	TRANSISTOR UN2111	
Q435	8-729-421-19	TRANSISTOR UN2213	
Q437	8-729-424-08	TRANSISTOR UN2111	
Q438	8-729-421-19	TRANSISTOR UN2213	
		< RESISTOR >	
R301	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R302	1-216-073-00	METAL CHIP 10K 5%	1/10W
R303	1-216-073-00	METAL CHIP 10K 5%	1/10W
R304	1-216-063-91	RES,CHIP 3.9K 5%	1/10W
R305	1-216-055-00	METAL CHIP 1.8K 5%	1/10W
R306	1-216-021-00	METAL CHIP 68 5%	1/10W
R307	1-216-021-00	METAL CHIP 68 5%	1/10W
R308	1-216-021-00	METAL CHIP 68 5%	1/10W
R309	1-216-021-00	METAL CHIP 68 5%	1/10W
R310	1-216-021-00	METAL CHIP 68 5%	1/10W
R311	1-216-021-00	METAL CHIP 68 5%	1/10W
R312	1-216-033-00	METAL CHIP 220 5%	1/10W
R313	1-216-021-00	METAL CHIP 68 5%	1/10W
R314	1-216-025-91	RES,CHIP 100 5%	1/10W
R315	1-216-021-00	METAL CHIP 68 5%	1/10W
R316	1-216-021-00	METAL CHIP 68 5%	1/10W
R317	1-216-021-00	METAL CHIP 68 5%	1/10W
R320	1-216-073-00	METAL CHIP 10K 5%	1/10W
R348	1-216-097-91	RES,CHIP 100K 5%	1/10W
R401	1-216-037-00	METAL CHIP 330 5%	1/10W
R402	1-216-042-00	METAL CHIP 510 5%	1/10W
R403	1-216-042-00	METAL CHIP 510 5%	1/10W

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Ref. No.	Part No.	Description			Remark
R404	1-216-042-00	METAL CHIP	510	5%	1/10W
R405	1-216-042-00	METAL CHIP	510	5%	1/10W
R406	1-216-042-00	METAL CHIP	510	5%	1/10W
R407	1-216-042-00	METAL CHIP	510	5%	1/10W
R408	1-216-073-00	METAL CHIP	10K	5%	1/10W
R409	1-216-097-91	RES,CHIP	100K	5%	1/10W
R410	1-216-097-91	RES,CHIP	100K	5%	1/10W
R411	1-216-097-91	RES,CHIP	100K	5%	1/10W
R412	1-216-097-91	RES,CHIP	100K	5%	1/10W
R413	1-216-073-00	METAL CHIP	10K	5%	1/10W
R414	1-216-097-91	RES,CHIP	100K	5%	1/10W
R415	1-216-295-91	SHORT	0		
R420	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R423	1-216-109-00	METAL CHIP	330K	5%	1/10W
R425	1-216-109-00	METAL CHIP	330K	5%	1/10W
R426	1-216-109-00	METAL CHIP	330K	5%	1/10W
R428	1-216-109-00	METAL CHIP	330K	5%	1/10W
R429	1-216-109-00	METAL CHIP	330K	5%	1/10W
R430	1-216-066-00	METAL CHIP	5.1K	5%	1/10W
R431	1-216-109-00	METAL CHIP	330K	5%	1/10W
R433	1-216-066-00	METAL CHIP	5.1K	5%	1/10W
R437	1-216-066-00	METAL CHIP	5.1K	5%	1/10W
R438	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R439	1-259-452-11	CARBON	10K	5%	1/6W
R440	1-216-073-00	METAL CHIP	10K	5%	1/10W
R441	1-216-073-00	METAL CHIP	10K	5%	1/10W
R442	1-216-075-00	METAL CHIP	12K	5%	1/10W
R443	1-259-452-11	CARBON	10K	5%	1/6W
R444	1-216-073-00	METAL CHIP	10K	5%	1/10W
R445	1-216-073-00	METAL CHIP	10K	5%	1/10W
R446	1-216-073-00	METAL CHIP	10K	5%	1/10W
R447	1-259-426-11	CARBON	820	5%	1/6W
R448	1-216-047-91	RES,CHIP	820	5%	1/10W
R449	1-216-047-91	RES,CHIP	820	5%	1/10W
R450	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R451	1-259-426-11	CARBON	820	5%	1/6W
R452	1-216-047-91	RES,CHIP	820	5%	1/10W
R453	1-216-047-91	RES,CHIP	820	5%	1/10W
R454	1-216-047-91	RES,CHIP	820	5%	1/10W
R455	1-259-434-11	CARBON	1.8K	5%	1/6W
R456	1-259-424-11	CARBON	680	5%	1/6W
R457	1-259-424-11	CARBON	680	5%	1/6W
R458	1-259-434-11	CARBON	1.8K	5%	1/6W
R459	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R460	1-216-045-00	METAL CHIP	680	5%	1/10W
R461	1-216-045-00	METAL CHIP	680	5%	1/10W
R462	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R463	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R464	1-216-045-00	METAL CHIP	680	5%	1/10W
R465	1-216-045-00	METAL CHIP	680	5%	1/10W
R466	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R467	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R468	1-216-045-00	METAL CHIP	680	5%	1/10W
R469	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R470	1-216-075-00	METAL CHIP	12K	5%	1/10W
R471	1-216-109-00	METAL CHIP	330K	5%	1/10W
R472	1-216-109-00	METAL CHIP	330K	5%	1/10W
R473	1-216-109-00	METAL CHIP	330K	5%	1/10W
R474	1-216-109-00	METAL CHIP	330K	5%	1/10W
R475	1-216-109-00	METAL CHIP	330K	5%	1/10W
R476	1-216-109-00	METAL CHIP	330K	5%	1/10W
R477	1-216-109-00	METAL CHIP	330K	5%	1/10W
R478	1-216-109-00	METAL CHIP	330K	5%	1/10W
R479	1-259-412-11	CARBON	220	5%	1/6W
R480	1-216-041-00	METAL CHIP	470	5%	1/10W
R481	1-216-041-00	METAL CHIP	470	5%	1/10W
R482	1-216-041-00	METAL CHIP	470	5%	1/10W
R483	1-216-085-00	METAL CHIP	33K	5%	1/10W
R484	1-216-085-00	METAL CHIP	33K	5%	1/10W
R485	1-259-412-11	CARBON	220	5%	1/6W
R486	1-216-041-00	METAL CHIP	470	5%	1/10W
R487	1-216-041-00	METAL CHIP	470	5%	1/10W
R488	1-216-041-00	METAL CHIP	470	5%	1/10W
R489	1-216-049-91	RES,CHIP	1K	5%	1/10W
R490	1-216-049-91	RES,CHIP	1K	5%	1/10W
R491	1-216-049-91	RES,CHIP	1K	5%	1/10W
R492	1-216-025-91	RES,CHIP	100	5%	1/10W
R493	1-216-025-91	RES,CHIP	100	5%	1/10W
R494	1-216-049-91	RES,CHIP	1K	5%	1/10W
R495	1-216-049-91	RES,CHIP	1K	5%	1/10W
R496	1-216-025-91	RES,CHIP	100	5%	1/10W
R497	1-216-025-91	RES,CHIP	100	5%	1/10W
R498	1-216-049-91	RES,CHIP	1K	5%	1/10W
R499	1-216-049-91	RES,CHIP	1K	5%	1/10W
R500	1-216-025-91	RES,CHIP	100	5%	1/10W
R501	1-216-025-91	RES,CHIP	100	5%	1/10W
R502	1-216-049-91	RES,CHIP	1K	5%	1/10W
R504	1-216-085-00	METAL CHIP	33K	5%	1/10W
R505	1-216-085-00	METAL CHIP	33K	5%	1/10W
R506	1-259-420-11	CARBON	470	5%	1/6W
R507	1-259-420-11	CARBON	470	5%	1/6W
R508	1-259-420-11	CARBON	470	5%	1/6W
R509	1-259-420-11	CARBON	470	5%	1/6W
R510	1-216-085-00	METAL CHIP	33K	5%	1/10W
R511	1-216-077-00	METAL CHIP	15K	5%	1/10W
R512	1-216-077-00	METAL CHIP	15K	5%	1/10W
R513	1-216-085-00	METAL CHIP	33K	5%	1/10W
R514	1-216-025-91	RES,CHIP	100	5%	1/10W
R515	1-216-025-91	RES,CHIP	100	5%	1/10W
R516	1-216-049-91	RES,CHIP	1K	5%	1/10W
R517	1-216-049-91	RES,CHIP	1K	5%	1/10W
R519	1-259-440-11	CARBON	3.3K	5%	1/6W
R520	1-259-404-11	CARBON	100	5%	1/6W
R521	1-259-440-11	CARBON	3.3K	5%	1/6W
R523	1-259-404-11	CARBON	100	5%	1/6W
R524	1-259-466-11	CARBON	39K	5%	1/6W
R525	1-259-404-11	CARBON	100	5%	1/6W
R526	1-216-081-00	METAL CHIP	22K	5%	1/10W
R531	1-216-097-91	RES,CHIP	100K	5%	1/10W
R532	1-216-097-91	RES,CHIP	100K	5%	1/10W
R533	1-216-097-91	RES,CHIP	100K	5%	1/10W
R534	1-216-097-91	RES,CHIP	100K	5%	1/10W
R536	1-216-295-91	SHORT	0		
R538	1-216-295-91	SHORT	0		
R539	1-216-295-91	SHORT	0		
R540	1-216-295-91	SHORT	0		
R542	1-259-445-11	CARBON	5.1K	5%	1/6W
R543	1-259-445-11	CARBON	5.1K	5%	1/6W
R544	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R545	1-216-059-00	METAL CHIP	2.7K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R546	1-216-085-00	METAL CHIP	33K	5%	1/10W
R547	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R548	1-259-445-11	CARBON	5.1K	5%	1/6W
R549	1-259-445-11	CARBON	5.1K	5%	1/6W
R550	1-216-081-00	METAL CHIP	22K	5%	1/10W
R552	1-216-066-00	METAL CHIP	5.1K	5%	1/10W
R553	1-216-066-00	METAL CHIP	5.1K	5%	1/10W
R556	1-216-066-00	METAL CHIP	5.1K	5%	1/10W
R557	1-216-066-00	METAL CHIP	5.1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
*	A-6065-263-A	FL-97 BOARD, COMPLETE (S330)			
*	A-6065-240-A	FL-99 BOARD, COMPLETE (S705D)			
*	A-6065-220-A	FL-101 BOARD, COMPLETE			(S530D: US, Canadian)
*	A-6065-223-A	FL-101 BOARD, COMPLETE(S530D: E)			
*	A-6065-236-A	FL-101 BOARD, COMPLETE(S550D)			
	************************************				(Ref.No. 2,000 Series)
	3-053-487-01	HOLDER, FL TUBE			
		< CAPACITOR >			
C201	1-124-259-11	ELECT	4.7uF	20%	16V
C203	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C204	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V (S330/530D: US, Canadian/S550D)
C205	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C206	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V (S330/530D: US, Canadian/S550D)
C207	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V (S330/530D: US, Canadian/S550D)
C208	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V (S330/530D: US, Canadian/S550D)
C209	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V (S550D/S705D)
C210	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V (S550D/S705D)
C211	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C212	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V (S530D/S550D/S705D)
C213	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V (S530D/S550D/S705D)
C214	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V (S530D/S550D/S705D)
C215	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C216	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C219	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C220	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C221	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C222	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C223	1-128-131-11	ELECT	22uF	20%	50V
C235	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C236	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C237	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C238	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C239	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C240	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C241	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C242	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C243	1-163-001-11	CERAMIC CHIP	220PF	10%	50V

Ref. No.	Part No.	Description		Remark
		< CONNECTOR >		
CN201	1-568-666-11	CONNECTOR, BOARD TO BOARD 12P		
CN202	1-785-731-21	CONNECTOR, FFC/FPC 17P		
CN203	1-785-730-21	CONNECTOR, FFC/FPC 9P		
		< DIODE >		
D202	8-719-988-61	DIODE	1SS355TE-17	
D203	8-719-069-45	DIODE	SELU5E23C-TP15	(DOLBY DIGITAL) (S530D/S550D)
D203	8-719-069-45	DIODE	SELU5E23C-TP15	(MULTI CANNEL) (S705D)
D204	8-719-056-06	DIODE	SLR-342DCT31 (JOG)	(S530D/S550D/S705D)
D205	8-719-073-03	DIODE	MA8082-(K8).S0	(S330/S530D: US, Canadian/S550D)
D206	8-719-018-12	DIODE	MA8330-L-TX	
D207	8-719-422-67	DIODE	MA8062-H-TX	
		< EARTH TERMINAL >		
* ET201	1-537-738-21	TERMINAL, EARTH (S705D)		
		< FERRITE BEAD >		
FB201	1-414-135-11	FERRITE	0UH	
		< IC >		
IC201	8-759-574-86	IC	M38B57MCH-E206FP	
IC202	8-759-326-78	IC	PST9140NL	
IC203	8-759-356-27	IC	NJM2129M-TE2	(S330/S530D: US, Canadian/S550D)
		< JUMPER RESISTOR >		
JR201	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR202	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR203	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR204	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR205	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR206	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR207	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR208	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR209	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR210	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR211	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR212	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR214	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR216	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR217	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR218	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR219	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR220	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR224	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR226	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR229	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR230	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR231	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR233	1-216-296-91	SHORT	0	(S330/S530D/S550D)
JR234	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR235	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR236	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR237	1-216-295-91	SHORT	0	(S330/S530D/S550D)
JR238	1-216-296-91	SHORT	0	(S330/S530D/S550D)

Ref. No.	Part No.	Description			Remark
JR244	1-216-295-91	SHORT	0 (S330/S530D/S550D)		
JR249	1-216-296-91	SHORT	0 (S330/S530D/S550D)		
		< FLUORECENT INDICATOR >			
ND201	1-517-836-11	INDICATOR TUBE, FLUORESCENT			
		< TRANSISTOR >			
Q201	8-729-804-41	TRANSISTOR	2SB1122-S		
		< RESISTOR >			
R201	1-216-073-00	METAL CHIP	10K	5%	1/10W
R202	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R203	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R204	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R205	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R206	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R207	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R208	1-216-077-00	METAL CHIP	15K	5%	1/10W (S530D/S550D/S705D)
R209	1-216-091-00	METAL CHIP	56K	5%	1/10W (S550D/S705D)
R211	1-216-073-00	METAL CHIP	10K	5%	1/10W
R212	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R213	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R214	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R215	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R216	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R217	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R218	1-216-077-00	METAL CHIP	15K	5%	1/10W
R221	1-216-073-00	METAL CHIP	10K	5%	1/10W
R222	1-216-053-00	METAL CHIP	1.5K	5%	1/10W (S530D/S550D/S705D)
R223	1-216-055-00	METAL CHIP	1.8K	5%	1/10W (S530D/S550D/S705D)
R224	1-216-059-00	METAL CHIP	2.7K	5%	1/10W (S530D/S550D/S705D)
R225	1-216-061-00	METAL CHIP	3.3K	5%	1/10W (S530D/S550D/S705D)
R226	1-216-025-91	RES,CHIP	100	5%	1/10W (S530D/S550D/S705D)
R227	1-216-025-91	RES,CHIP	100	5%	1/10W (S530D/S550D/S705D)
R229	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R230	1-216-073-00	METAL CHIP	10K	5%	1/10W
R231	1-216-025-91	RES,CHIP	100	5%	1/10W
R232	1-216-025-91	RES,CHIP	100	5%	1/10W
R241	1-216-073-00	METAL CHIP	10K	5%	1/10W
R243	1-216-073-00	METAL CHIP	10K	5%	1/10W
R244	1-216-073-00	METAL CHIP	10K	5%	1/10W
R247	1-216-073-00	METAL CHIP	10K	5%	1/10W
R248	1-216-073-00	METAL CHIP	10K	5%	1/10W
R249	1-216-073-00	METAL CHIP	10K	5%	1/10W
R250	1-216-073-00	METAL CHIP	10K	5%	1/10W
R251	1-216-049-91	RES,CHIP	1K	5%	1/10W
R252	1-216-049-91	RES,CHIP	1K	5%	1/10W
R253	1-216-073-00	METAL CHIP	10K	5%	1/10W
R254	1-216-073-00	METAL CHIP	10K	5%	1/10W
R255	1-216-073-00	METAL CHIP	10K	5%	1/10W
R256	1-216-073-00	METAL CHIP	10K	5%	1/10W
R257	1-216-025-91	RES,CHIP	100	5%	1/10W
R258	1-216-025-91	RES,CHIP	100	5%	1/10W
R259	1-216-025-91	RES,CHIP	100	5%	1/10W
R260	1-216-025-91	RES,CHIP	100	5%	1/10W
R261	1-216-025-91	RES,CHIP	100	5%	1/10W
R262	1-216-025-91	RES,CHIP	100	5%	1/10W
R263	1-216-073-00	METAL CHIP	10K	5%	1/10W (S530D/S550D/S705D)
R264	1-216-073-00	METAL CHIP	10K	5%	1/10W
R266	1-216-049-91	RES,CHIP	1K	5%	1/10W (S550D)
R266	1-216-073-00	METAL CHIP	10K	5%	1/10W (S330)
R266	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (S705D)
R267	1-216-049-91	RES,CHIP	1K	5%	1/10W
R268	1-216-089-91	RES,CHIP	47K	5%	1/10W
R270	1-216-073-00	METAL CHIP	10K	5%	1/10W
R271	1-216-073-00	METAL CHIP	10K	5%	1/10W
R272	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R273	1-216-025-91	RES,CHIP	100	5%	1/10W
R274	1-216-097-91	RES,CHIP	100K	5%	1/10W
R275	1-216-073-00	METAL CHIP	10K	5%	1/10W
R276	1-216-073-00	METAL CHIP	10K	5%	1/10W
R277	1-216-073-00	METAL CHIP	10K	5%	1/10W
R278	1-216-073-00	METAL CHIP	10K	5%	1/10W
R279	1-216-073-00	METAL CHIP	10K	5%	1/10W
R280	1-216-073-00	METAL CHIP	10K	5%	1/10W (S330)
R281	1-216-049-91	RES,CHIP	1K	5%	1/10W (S330/S530D: US ,Canadian/S550D)
R282	1-216-049-91	RES,CHIP	1K	5%	1/10W (S330/S530D: US, Canadian/S550D)
R283	1-216-295-91	SHORT	0		(S330/S530D: US, Canadian/S550D)
R284	1-216-073-00	METAL CHIP	10K	5%	1/10W
R285	1-216-045-00	METAL CHIP	680	5%	1/10W (S530D/S550D/S705D)
R286	1-216-073-00	METAL CHIP	10K	5%	1/10W
R287	1-216-037-00	METAL CHIP	330	5%	1/10W (S530D/S550D/S705D)
R288	1-216-073-00	METAL CHIP	10K	5%	1/10W
R289	1-216-073-00	METAL CHIP	10K	5%	1/10W
R298	1-216-025-91	RES,CHIP	100	5%	1/10W (S550D/S705D)
R299	1-216-025-91	RES,CHIP	100	5%	1/10W (S550D/S705D)
		< SWITCH >			
S201	1-771-349-21	SWITCH, KEYBOARD (■)			
S202	1-771-349-21	SWITCH, KEYBOARD (❚❚)			
S208	1-771-349-21	SWITCH, KEYBOARD (JOG)			(S530D/S550D/S705D)
S212	1-771-349-21	SWITCH, KEYBOARD (⏏OPEN/CLOSE)			
S213	1-771-349-21	SWITCH, KEYBOARD (▷)			
S214	1-771-349-21	SWITCH, KEYBOARD (TITLE)			
S215	1-771-349-21	SWITCH, KEYBOARD (DVD MENU)			
S216	1-771-349-21	SWITCH, KEYBOARD (RETURN)			
S217	1-771-349-21	SWITCH, KEYBOARD (PREV⏮)			(S330/S530D)
S217	1-771-349-21	SWITCH, KEYBOARD (◀◀SEARCH)			(S550D/S705D)

Ref. No.	Part No.	Description	Remark
S218	1-771-349-21	SWITCH, KEYBOARD (▶▶|NEXT)	(S330/S530D)
S218	1-771-349-21	SWITCH, KEYBOARD (SEARCH▶▶)	(S550D/S705D)
S221	1-771-349-21	SWITCH, KEYBOARD (REPEAT)	(S530D/S550D/S705D)
S222	1-771-349-21	SWITCH, KEYBOARD (CLEAR)	(S530D/S550D/S705D)
S223	1-771-349-21	SWITCH, KEYBOARD (PROGRAM)	(S530D/S550D/S705D)
S224	1-771-349-21	SWITCH, KEYBOARD (SHUFFLE)	(S530D/S550D/S705D)
S230	1-475-235-21	ENCODER, ROTARY (PREV|◀◀, ▶▶|NEXT)	(S550D/S705D)
		< VIBRATOR >	
X201	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	

Ref. No.	Part No.	Description	Remark
*	A-6065-262-A	FR-146 BOARD, COMPLETE (S330)	
*	A-6065-241-A	FR-148 BOARD, COMPLETE (S705D)	
*	A-6065-218-A	FR-150 BOARD, COMPLETE (S530D)	
*	A-6065-237-A	FR-150 BOARD, COMPLETE (S550D)	
		**********************	(Ref.No. 4,000 Series)
		< CAPACITOR >	
C001	1-124-234-00	ELECT 22uF 20%	16V
C002	1-137-150-11	FILM 0.01uF 5%	100V
C003	1-115-339-11	CERAMIC CHIP 0.1uF 10%	50V
C004	1-115-339-11	CERAMIC CHIP 0.1uF 10%	50V
C005	1-128-131-11	ELECT 22uF 20%	50V
C051	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
		< CONNECTOR >	
CN001	1-506-485-11	PIN, CONNECTOR 6P	
CN002	1-568-672-11	CONNECTOR, BOARD TO BOARD 12P	
CN003	1-785-712-11	CONNECTOR, BOARD TO BOARD 4P	(S530D/S550D/S705D)
		< DIODE >	
D001	8-719-041-97	DIODE MA113-(TX)	
D002	8-719-041-97	DIODE MA113-(TX)	
D003	8-719-041-97	DIODE MA113-(TX)	
D004	8-719-041-97	DIODE MA113-(TX)	
D071	8-719-064-11	DIODE SPR-325MVW (ON/STANDBY)	
		< FERRITE BEAD >	
FB001	1-414-135-11	FERRITE 0UH	
FB002	1-414-135-11	FERRITE 0UH	
FB004	1-469-324-21	FERRITE 0UH	
		< IC >	
IC051	8-749-011-22	IC GP1U27X	
		< COIL >	
L001	1-408-978-21	INDUCTOR 47uH	
		< TRANSISTOR >	
Q001	8-729-808-41	TRANSISTOR 2SD1624-S	
Q002	8-729-808-41	TRANSISTOR 2SD1624-S	
		< RESISTOR >	
R002	1-216-073-00	METAL CHIP 10K 5%	1/10W
R003	1-216-073-00	METAL CHIP 10K 5%	1/10W
R071	1-216-047-91	RES,CHIP 820 5%	1/10W
R072	1-216-037-00	METAL CHIP 330 5%	1/10W
		< SWITCH >	
S071	1-771-349-21	SWITCH, KEYBOARD (I/⏻)	
		< TRANSFORMER >	
T001	1-433-748-11	TRANSFORMER, DC-DC CONVERTER	

Ref. No.	Part No.	Description	Remark
*	A-6065-257-A	HP-109 BOARD, COMPLETE (S705D)	
*	A-6065-219-A	HP-111 BOARD, COMPLETE (S530D/S550D)	
		**********************	(Ref.No. 3,000 Series)
		< CONNECTOR >	
* CN701	1-564-013-11	PIN, CONNECTOR 3P	
		< CAPACITOR >	
C701	1-163-011-11	CERAMIC CHIP 0.0015uF 10%	50V (S705D)
C702	1-163-011-11	CERAMIC CHIP 0.0015uF 10%	50V (S705D)
		< DIODE >	
D701	8-719-071-15	DIODE HZM6.8ZWA1TL	
D702	8-719-071-15	DIODE HZM6.8ZWA1TL	
		< FERRITE BEAD >	
FB701	1-414-135-11	FERRITE 0UH	
FB702	1-414-135-11	FERRITE 0UH	
FB703	1-414-135-11	FERRITE 0UH	
		< JACK >	
J701	1-785-505-31	JACK, LARGE TYPE (PHONES)	(S530D/S550D)
J701	1-785-505-41	JACK, LARGE TYPE (PHONES)	(S705D)
		< JUMPER RESISTOR >	
JR701	1-216-295-91	SHORT 0	(S530D/S550D)
		< VARIABLE RESISTOR >	
RV701	1-225-738-11	RES, VAR, CARBON 500/500 (LEVEL)	

Ref. No.	Part No.	Description	Remark
*	A-6065-265-A	MB-85 BOARD, COMPLETE (S330)	
*	A-6065-216-A	MB-85 BOARD, COMPLETE	(S530D: US, Canadian)
*	A-6065-224-A	MB-85 BOARD, COMPLETE (S530D: E)	
*	A-6065-238-A	MB-85 BOARD, COMPLETE (S550D)	
*	A-6065-245-A	MB-82 BOARD, COMPLETE (S705D)	
		**********************	(Ref.No. 1,000 Series)
		< CAPACITOR >	
C001	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C002	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V
C003	1-126-246-11	ELECT CHIP 220uF 20%	4V
C004	1-126-204-11	ELECT CHIP 47uF 20%	16V

MB-82 MB-85

Ref. No.	Part No.	Description			Remark
C005	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C007	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C008	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C010	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C011	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C012	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C013	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C015	1-126-246-11	ELECT CHIP	220uF	20%	4V
C016	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C017	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C018	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C019	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C201	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C202	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C203	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C204	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C206	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C209	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C210	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C211	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C212	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C213	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C304	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C307	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C309	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C310	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C312	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C313	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C314	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C315	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C316	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C317	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C318	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C319	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C320	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C321	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C322	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C323	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C324	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C325	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C327	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C328	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C329	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C331	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C333	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C334	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C337	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C338	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C339	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C341	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C344	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C401	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C402	1-126-209-11	ELECT CHIP	100uF	20%	4V
C403	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C404	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C405	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C406	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C408	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C410	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C411	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C414	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C415	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C416	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C418	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C420	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C422	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C425	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C426	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C428	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C431	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C432	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C433	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C434	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C436	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C438	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C439	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C440	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C441	1-126-209-11	ELECT CHIP	100uF	20%	4V
C443	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C502	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S550D/S705D)
C505	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S530D/S550D/S705D)
C506	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S530D/S550D/S705D)
C508	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S530D/S550D/S705D)
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S530D/S550D/S705D)
C512	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S530D/S550D/S705D)
C513	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S550D/S705D)
C514	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S550D/S705D)
C515	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S550D/S705D)
C516	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S550D/S705D)
C517	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S550D/S705D)
C601	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C602	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C603	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C604	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C605	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C606	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C607	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C608	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C701	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C702	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C703	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C704	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C705	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C706	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C707	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C708	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C709	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C710	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C711	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description			Remark
C712	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C713	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C714	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C715	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C717	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C801	1-126-204-11	ELECT CHIP	47uF	20%	16V
C802	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C803	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C805	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C806	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C807	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C808	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C809	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C810	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C811	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C812	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C813	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C814	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C815	1-110-666-11	ELECT CHIP	22uF	20%	6.3V
C816	1-104-601-11	ELECT CHIP	10uF	20%	10V
C817	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C818	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C819	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C820	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C821	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C822	1-126-204-11	ELECT CHIP	47uF	20%	16V
C823	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C824	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C825	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C830	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C831	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C832	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C833	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C834	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C835	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C836	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C837	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C904	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V (S530D/S550D/S705D)
C905	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C906	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V (S330/S530D/S550D)
C906	1-127-950-21	FILM CHIP	0.01uF	5%	16.5V (S705D)
C907	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C908	1-128-391-11	ELECT CHIP	330uF	20%	6.3V (S330/S530D/S550D)
C909	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V (S330/S530D/S550D)
C909	1-127-950-21	FILM CHIP	0.01uF	5%	16.5V (S705D)
C910	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C911	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V (S330/S530D/S550D)
C911	1-127-950-21	FILM CHIP	0.01uF	5%	16.5V (S705D)
C912	1-127-516-11	ELECT	220uF	20%	10V (S705D)
C913	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V (S530D/S550D)
C913	1-127-950-21	FILM CHIP	0.01uF	5%	16.5V (S705D)
C914	1-104-851-11	TANTAL. CHIP	10uF	20%	10V (S530D/S550D/S705D)
C916	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V (S530D/S550D)
C916	1-127-950-21	FILM CHIP	0.01uF	5%	16.5V (S705D)
C922	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V (S530D/S550D)
C922	1-127-950-21	FILM CHIP	0.01uF	5%	16.5V (S705D)
C923	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C924	1-104-851-11	TANTAL. CHIP	10uF	20%	10V (S530D/S550D/S705D)
C925	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S530D/S550D/S705D)
C926	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V (S530D/S550D/S705D)
C927	1-104-851-11	TANTAL. CHIP	10uF	20%	10V (S530D/S550D/S705D)
C928	1-128-391-11	ELECT CHIP	330uF	20%	6.3V (S530D/S550D/S705D)
C929	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S530D/S550D/S705D)
C931	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V (S530D/S550D/S705D)
C932	1-104-851-11	TANTAL. CHIP	10uF	20%	10V (S530D/S550D/S705D)
C933	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S530D/S550D/S705D)
C934	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V (S530D/S550D/S705D)
C935	1-104-851-11	TANTAL. CHIP	10uF	20%	10V (S530D/S550D/S705D)
C937	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (S530D/S550D/S705D)
C939	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V (S530D/S550D/S705D)
C940	1-104-851-11	TANTAL. CHIP	10uF	20%	10V (S530D/S550D/S705D)
		< CONNECTOR >			
CN001	1-785-728-21	PIN (PC BOARD), CONNECTOR 7P			
CN002	1-779-936-11	CONNECTOR, FFC/FPC 18P			
CN003	1-779-936-11	CONNECTOR, FFC/FPC 18P			
CN004	1-778-772-11	CONNECTOR, FFC/FPC 7P			(S530D/S550D/S705D)
CN005	1-784-327-11	CONNECTOR, FFC/FPC 28P			
CN006	1-774-768-11	CONNECTOR, FFC/FPC 17P			
CN007	1-778-274-11	CONNECTOR, FFC/FPC 13P			(S530D/S550D/S705D)
CN010	1-573-806-21	PIN, CONNECTOR (1.5MM) (SMD)6P			
CN011	1-573-806-21	PIN, CONNECTOR (1.5MM) (SMD)6P			
* CN012	1-573-768-21	PIN, CONNECTOR (1.5MM) (SMD)5P			
		< DIODE >			
D701	8-719-988-61	DIODE 1SS355TE-17			
D801	8-719-941-09	DIODE DAP202U			
D802	8-719-988-61	DIODE 1SS355TE-17			
D803	8-719-941-09	DIODE DAP202U			
D804	8-719-941-86	DIODE DAN202U			
D805	8-719-941-86	DIODE DAN202U			
D806	8-719-988-61	DIODE 1SS355TE-17			
D807	8-719-988-61	DIODE 1SS355TE-17			

< FERRITE BEAD >

Ref. No.	Part No.	Description	Remark
FB001	1-469-324-21	FERRITE 0UH	
FB002	1-469-324-21	FERRITE 0UH	
FB003	1-469-324-21	FERRITE 0UH	
FB004	1-469-324-21	FERRITE 0UH	
FB005	1-469-324-21	FERRITE 0UH	
FB006	1-469-324-21	FERRITE 0UH	
FB007	1-469-324-21	FERRITE 0UH	
FB008	1-469-324-21	FERRITE 0UH	
FB010	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB011	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB012	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB014	1-469-116-21	FERRITE 0UH	
FB015	1-469-116-21	FERRITE 0UH	
FB016	1-216-801-11	METAL CHIP 22 5% 1/16W	
FB017	1-469-116-21	FERRITE 0UH	
FB018	1-469-116-21	FERRITE 0UH	
FB019	1-469-116-21	FERRITE 0UH	
FB020	1-469-116-21	FERRITE 0UH	
FB021	1-469-116-21	FERRITE 0UH	
FB022	1-469-116-21	FERRITE 0UH	
FB024	1-469-116-21	FERRITE 0UH	
FB026	1-469-116-21	FERRITE 0UH	
FB028	1-469-116-21	FERRITE 0UH	
FB029	1-469-324-21	FERRITE 0UH	
FB030	1-469-116-21	FERRITE 0UH	
FB031	1-469-116-21	FERRITE 0UH	
FB032	1-469-116-21	FERRITE 0UH	
FB033	1-469-116-21	FERRITE 0UH	
FB035	1-469-116-21	FERRITE 0UH	
FB037	1-469-116-21	FERRITE 0UH	
FB040	1-469-116-21	FERRITE 0UH	
FB043	1-500-283-11	INDUCTOR CHIP 0UH	
FB047	1-469-116-21	FERRITE 0UH	
FB049	1-469-116-21	FERRITE 0UH	
FB051	1-469-116-21	FERRITE 0UH	
FB052	1-500-283-11	INDUCTOR CHIP 0UH	(S330/S530D: US, Canadian/S550D)
FB053	1-500-283-11	INDUCTOR CHIP 0UH	
FB054	1-500-283-11	INDUCTOR CHIP 0UH	
FB055	1-500-283-11	INDUCTOR CHIP 0UH	
FB056	1-500-283-11	INDUCTOR CHIP 0UH	
FB058	1-500-283-11	INDUCTOR CHIP 0UH	
FB060	1-500-283-11	INDUCTOR CHIP 0UH	
FB061	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB063	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB065	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB067	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB069	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB071	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB073	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB075	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB077	1-469-116-21	FERRITE 0UH	(S530D/S550D/S705D)
FB078	1-216-801-11	METAL CHIP 22 5% 1/16W	(S530D/S550D/S705D)
FB080	1-216-801-11	METAL CHIP 22 5% 1/16W	
FB081	1-216-801-11	METAL CHIP 22 5% 1/16W	
FB083	1-216-801-11	METAL CHIP 22 5% 1/16W	
FB084	1-216-801-11	METAL CHIP 22 5% 1/16W	
FB085	1-216-801-11	METAL CHIP 22 5% 1/16W	
FB086	1-216-801-11	METAL CHIP 22 5% 1/16W	(S550D/S705D)
FB087	1-216-801-11	METAL CHIP 22 5% 1/16W	
FB088	1-216-801-11	METAL CHIP 22 5% 1/16W	(S530D/S550D/S705D)
FB090	1-469-116-21	FERRITE 0UH	(S550D)
FB105	1-469-324-21	FERRITE 0UH	
FB106	1-469-324-21	FERRITE 0UH	

< FILTER >

Ref. No.	Part No.	Description	Remark
FL001	1-234-177-21	FILTER, CHIP EMI	
FL002	1-234-177-21	FILTER, CHIP EMI	
FL003	1-233-893-21	FILTER, CHIP EMI	
FL004	1-233-893-21	FILTER, CHIP EMI	
FL005	1-234-177-21	FILTER, CHIP EMI	
FL006	1-234-177-21	FILTER, CHIP EMI	
FL008	1-234-177-21	FILTER, CHIP EMI	
FL009	1-234-177-21	FILTER, CHIP EMI	
FL010	1-234-177-21	FILTER, CHIP EMI	
FL014	1-234-177-21	FILTER, CHIP EMI	
FL015	1-234-177-21	FILTER, CHIP EMI	
FL016	1-234-177-21	FILTER, CHIP EMI	
FL202	1-234-177-21	FILTER, CHIP EMI	
FL203	1-234-177-21	FILTER, CHIP EMI	
FL204	1-234-177-21	FILTER, CHIP EMI	
FL205	1-234-177-21	FILTER, CHIP EMI	
FL301	1-234-177-21	FILTER, CHIP EMI	
FL302	1-234-177-21	FILTER, CHIP EMI	
FL303	1-234-177-21	FILTER, CHIP EMI	
FL401	1-234-177-21	FILTER, CHIP EMI	
FL402	1-234-177-21	FILTER, CHIP EMI	
FL403	1-234-177-21	FILTER, CHIP EMI	
FL404	1-234-177-21	FILTER, CHIP EMI	
FL405	1-234-177-21	FILTER, CHIP EMI	
FL501	1-234-177-21	FILTER, CHIP EMI	(S550D/S705D)
FL502	1-234-177-21	FILTER, CHIP EMI	(S530D/S550D/S705D)
FL503	1-234-177-21	FILTER, CHIP EMI	(S550D/S705D)
FL601	1-234-177-21	FILTER, CHIP EMI	
FL602	1-234-177-21	FILTER, CHIP EMI	(S550D/S705D)
FL701	1-234-177-21	FILTER, CHIP EMI	
FL904	1-234-177-21	FILTER, CHIP EMI	(S530D/S550D/S705D)

< IC >

Ref. No.	Part No.	Description	Remark
IC001	8-759-567-31	IC PLL1700E/2K	
IC003	8-759-531-92	IC TC7WH04FU(TE12R)	
IC004	8-759-531-92	IC TC7WH04FU(TE12R)	
IC005	8-759-486-55	IC NJM2370U33-TE2	
IC201	8-759-469-25	IC AK6440AF-E2	
IC202	8-759-567-36	IC MB91101PFV-G-BND-R	
IC203	8-759-580-60	IC SN74AHCT08PWR	
IC204	8-759-573-65	IC IDT71V016S20PHAU-TL	
IC205	8-759-593-83	IC MBM29LV160B-210B-20	(S330)
IC205	8-759-594-03	IC MBM29LV160B-230B-20	(S530D)
IC205	8-759-593-86	IC MBM29LV160B-220B-20	(S550D)
IC205	8-759-593-85	IC MBM29LV160B-220A-20	(S705D)
IC207	8-759-427-92	IC PST9126NL	
IC302	8-759-486-55	IC NJM2370U33-TE2	
IC303	8-759-567-27	IC CXD8784R	
IC304	8-759-567-35	IC KM416V1200CT-L6T	

Ref. No.	Part No.	Description			Remark
IC401	8-752-388-68	IC CXD1930Q			
IC402	8-759-567-34	IC KM416S1020CT-G10T			
IC403	8-759-567-34	IC KM416S1020CT-G10T			
IC404	8-759-486-55	IC NJM2370U33-TE2			
IC501	8-752-392-50	IC CXD1901R (S530D/S550D/S705D)			
IC502	8-752-390-12	IC CXD1857Q (S550D/S705D)			
IC601	8-759-567-30	IC CXD8788Q			
IC602	8-759-567-55	IC KM29V16000AT-T (S550D/S705D)			
IC701	8-759-567-25	IC CXD8791Q			
IC702	8-759-337-40	IC NJM2904V(TE2)			
IC801	8-759-522-13	IC BA5981FP-E2			
IC802	8-759-567-26	IC BA5983FP-E2			
IC803	8-759-338-78	IC BA10324AFV-E2			
IC902	8-759-572-26	IC CXD8799N-T2			
IC904	8-759-052-52	IC L78M05T-FA			
IC905	8-759-572-26	IC CXD8799N-T2 (S530D/S550D/S705D)			
IC906	8-759-572-26	IC CXD8799N-T2 (S530D/S550D/S705D)			
IC907	8-759-572-26	IC CXD8799N-T2 (S530D/S550D/S705D)			
		< COIL >			
L001	1-414-754-11	INDUCTOR	10uH		
L402	1-414-754-11	INDUCTOR	10uH		
		< TRANSISTOR >			
Q801	8-729-015-74	TRANSISTOR UN5111-TX			
Q802	8-729-905-35	TRANSISTOR 2SC4081-R			
Q803	8-729-905-35	TRANSISTOR 2SC4081-R			
		< RESISTOR >			
R001	1-216-833-11	METAL CHIP	10K	5%	1/16W
R002	1-216-833-11	METAL CHIP	10K	5%	1/16W
R003	1-216-833-11	METAL CHIP	10K	5%	1/16W
R004	1-216-821-11	METAL CHIP	1K	5%	1/16W
R005	1-216-821-11	METAL CHIP	1K	5%	1/16W
R006	1-216-821-11	METAL CHIP	1K	5%	1/16W
R007	1-216-864-11	METAL CHIP	0	5%	1/16W
R009	1-216-864-11	METAL CHIP	0	5%	1/16W
R010	1-216-801-11	METAL CHIP	22	5%	1/16W
R014	1-216-801-11	METAL CHIP	22	5%	1/16W
R036	1-216-821-11	METAL CHIP	1K	5%	1/16W
R037	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R040	1-216-864-11	METAL CHIP	0	5%	1/16W (S530D/S550D/S705D)
R044	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R045	1-216-833-11	METAL CHIP	10K	5%	1/16W
R053	1-216-833-11	METAL CHIP	10K	5%	1/16W
R202	1-216-801-11	METAL CHIP	22	5%	1/16W
R203	1-216-833-11	METAL CHIP	10K	5%	1/16W
R204	1-216-833-11	METAL CHIP	10K	5%	1/16W
R205	1-216-845-11	METAL CHIP	100K	5%	1/16W
R206	1-216-845-11	METAL CHIP	100K	5%	1/16W
R207	1-216-833-11	METAL CHIP	10K	5%	1/16W
R212	1-216-813-11	METAL CHIP	220	5%	1/16W (S530D/S550D/S705D)
R212	1-216-809-11	METAL CHIP	100	5%	1/16W (S330)
R213	1-216-801-11	METAL CHIP	22	5%	1/16W
R217	1-216-833-11	METAL CHIP	10K	5%	1/16W
R222	1-216-833-11	METAL CHIP	10K	5%	1/16W
R223	1-216-833-11	METAL CHIP	10K	5%	1/16W
R225	1-216-833-11	METAL CHIP	10K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R226	1-216-833-11	METAL CHIP	10K	5%	1/16W
R227	1-216-813-11	METAL CHIP	220	5%	1/16W
R228	1-216-813-11	METAL CHIP	220	5%	1/16W
R229	1-216-813-11	METAL CHIP	220	5%	1/16W
R230	1-216-813-11	METAL CHIP	220	5%	1/16W
R231	1-216-813-11	METAL CHIP	220	5%	1/16W
R232	1-216-813-11	METAL CHIP	220	5%	1/16W
R235	1-216-864-11	METAL CHIP	0	5%	1/16W
R237	1-216-238-91	RES,CHIP	47K	5%	1/8W (S530D: E/S705D)
R238	1-216-238-91	RES,CHIP	47K	5%	1/8W (S530D)
R238	1-216-230-00	RES,CHIP	22K	5%	1/8W (S550D)
R238	1-216-224-91	RES,CHIP	12K	5%	1/8W (S705D)
R239	1-216-238-91	RES,CHIP	47K	5%	1/8W (S705D)
R239	1-216-230-00	RES,CHIP	22K	5%	1/8W (S530D: E)
R240	1-216-238-91	RES,CHIP	47K	5%	1/8W (S530D: E/S705D)
R241	1-216-238-91	RES,CHIP	47K	5%	1/8W (S530D)
R241	1-216-230-00	RES,CHIP	22K	5%	1/8W (S550D)
R241	1-216-224-91	RES,CHIP	12K	5%	1/8W (S705D)
R305	1-218-871-11	RES,CHIP	10K	0.50%	1/16W
R306	1-218-831-11	RES,CHIP	220	0.50%	1/16W
R307	1-218-875-11	RES,CHIP	15K	0.50%	1/16W
R308	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R309	1-216-838-11	METAL CHIP	27K	5%	1/16W
R310	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R311	1-216-821-11	METAL CHIP	1K	5%	1/16W
R313	1-216-833-11	METAL CHIP	10K	5%	1/16W
R314	1-216-833-11	METAL CHIP	10K	5%	1/16W
R315	1-216-833-11	METAL CHIP	10K	5%	1/16W
R316	1-218-855-11	RES,CHIP	2.2K	0.50%	1/16W
R317	1-218-871-11	RES,CHIP	10K	0.50%	1/16W
R318	1-216-849-11	METAL CHIP	220K	5%	1/16W
R319	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R320	1-218-853-11	RES,CHIP	1.8K	0.50%	1/16W
R321	1-218-847-11	RES,CHIP	1K	0.50%	1/16W
R322	1-218-871-11	RES,CHIP	10K	0.50%	1/16W
R323	1-216-833-11	METAL CHIP	10K	5%	1/16W
R324	1-216-833-11	METAL CHIP	10K	5%	1/16W
R325	1-216-833-11	METAL CHIP	10K	5%	1/16W
R326	1-216-833-11	METAL CHIP	10K	5%	1/16W
R327	1-216-833-11	METAL CHIP	10K	5%	1/16W
R328	1-216-833-11	METAL CHIP	10K	5%	1/16W
R329	1-216-833-11	METAL CHIP	10K	5%	1/16W
R330	1-216-833-11	METAL CHIP	10K	5%	1/16W
R331	1-216-833-11	METAL CHIP	10K	5%	1/16W
R332	1-216-833-11	METAL CHIP	10K	5%	1/16W
R337	1-216-809-11	METAL CHIP	100	5%	1/16W
R338	1-216-833-11	METAL CHIP	10K	5%	1/16W
R339	1-216-833-11	METAL CHIP	10K	5%	1/16W
R340	1-216-833-11	METAL CHIP	10K	5%	1/16W
R341	1-216-809-11	METAL CHIP	100	5%	1/16W
R403	1-216-833-11	METAL CHIP	10K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R404	1-216-864-11	METAL CHIP	0	5%	1/16W
R405	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R406	1-216-822-11	METAL CHIP	1.2K	5%	1/16W
R407	1-216-833-11	METAL CHIP	10K	5%	1/16W
R409	1-216-864-11	METAL CHIP	0	5%	1/16W
R410	1-216-821-11	METAL CHIP	1K	5%	1/16W
R411	1-216-833-11	METAL CHIP	10K	5%	1/16W
R412	1-216-809-11	METAL CHIP	100	5%	1/16W
R426	1-216-813-11	METAL CHIP	220	5%	1/16W
R427	1-216-813-11	METAL CHIP	220	5%	1/16W
R428	1-216-813-11	METAL CHIP	220	5%	1/16W
R429	1-216-813-11	METAL CHIP	220	5%	1/16W
R430	1-216-813-11	METAL CHIP	220	5%	1/16W
R431	1-216-813-11	METAL CHIP	220	5%	1/16W
R501	1-216-809-11	METAL CHIP	100	5%	1/16W (S550D/S705D)
R502	1-216-806-11	RES,CHIP	56	5%	1/16W (S330)
R519	1-216-809-11	METAL CHIP	100	5%	1/16W (S530D/S550D/S705D)
R520	1-216-833-11	METAL CHIP	10K	5%	1/16W (S530D/S550D/S705D)
R521	1-216-833-11	METAL CHIP	10K	5%	1/16W (S530D/S550D/S705D)
R522	1-216-833-11	METAL CHIP	10K	5%	1/16W (S530D/S550D/S705D)
R527	1-216-833-11	METAL CHIP	10K	5%	1/16W
R528	1-216-833-11	METAL CHIP	10K	5%	1/16W
R529	1-216-864-11	METAL CHIP	0	5%	1/16W (S330)
R530	1-216-864-11	METAL CHIP	0	5%	1/16W (S530D/S550D/S705D)
R536	1-216-864-11	METAL CHIP	0	5%	1/16W (S330)
R537	1-216-806-11	RES,CHIP	56	5%	1/16W (S530D/S550D/S705D)
R538	1-216-864-11	METAL CHIP	0	5%	1/16W (S330)
R539	1-216-864-11	METAL CHIP	0	5%	1/16W (S530D/S550D/S705D)
R540	1-216-864-11	METAL CHIP	0	5%	1/16W (S530D/S550D/S705D)
R541	1-216-864-11	METAL CHIP	0	5%	1/16W (S530D/S550D/S705D)
R543	1-216-864-11	METAL CHIP	0	5%	1/16W (S530D/S550D/S705D)
R544	1-216-864-11	METAL CHIP	0	5%	1/16W (S530D/S550D/S705D)
R604	1-216-833-11	METAL CHIP	10K	5%	1/16W (S550D/S705D)
R605	1-216-833-11	METAL CHIP	10K	5%	1/16W
R606	1-216-833-11	METAL CHIP	10K	5%	1/16W
R630	1-216-833-11	METAL CHIP	10K	5%	1/16W
R631	1-216-833-11	METAL CHIP	10K	5%	1/16W
R632	1-216-833-11	METAL CHIP	10K	5%	1/16W
R633	1-216-833-11	METAL CHIP	10K	5%	1/16W
R634	1-216-833-11	METAL CHIP	10K	5%	1/16W
R635	1-216-833-11	METAL CHIP	10K	5%	1/16W
R636	1-216-815-11	METAL CHIP	330	5%	1/16W
R637	1-216-809-11	METAL CHIP	100	5%	1/16W
R638	1-216-809-11	METAL CHIP	100	5%	1/16W
R639	1-216-809-11	METAL CHIP	100	5%	1/16W
R640	1-216-809-11	METAL CHIP	100	5%	1/16W

Ref. No.	Part No.	Description			Remark
R641	1-216-809-11	METAL CHIP	100	5%	1/16W
R642	1-216-809-11	METAL CHIP	100	5%	1/16W
R643	1-216-815-11	METAL CHIP	330	5%	1/16W
R647	1-216-833-11	METAL CHIP	10K	5%	1/16W
R701	1-216-805-11	METAL CHIP	47	5%	1/16W
R702	1-216-817-11	METAL CHIP	470	5%	1/16W
R703	1-216-817-11	METAL CHIP	470	5%	1/16W
R704	1-216-817-11	METAL CHIP	470	5%	1/16W
R705	1-216-817-11	METAL CHIP	470	5%	1/16W
R706	1-216-821-11	METAL CHIP	1K	5%	1/16W
R707	1-216-844-11	METAL CHIP	82K	5%	1/16W
R708	1-216-844-11	METAL CHIP	82K	5%	1/16W
R709	1-216-844-11	METAL CHIP	82K	5%	1/16W
R710	1-216-844-11	METAL CHIP	82K	5%	1/16W
R711	1-216-833-11	METAL CHIP	10K	5%	1/16W
R712	1-216-839-11	METAL CHIP	33K	5%	1/16W
R713	1-216-864-11	METAL CHIP	0	5%	1/16W (S550D)
R714	1-216-864-11	METAL CHIP	0	5%	1/16W (S550D)
R715	1-216-864-11	METAL CHIP	0	5%	1/16W (S550D)
R716	1-216-864-11	METAL CHIP	0	5%	1/16W (S550D)
R717	1-216-864-11	METAL CHIP	0	5%	1/16W (S550D)
R720	1-216-821-11	METAL CHIP	1K	5%	1/16W
R721	1-216-821-11	METAL CHIP	1K	5%	1/16W
R722	1-216-801-11	METAL CHIP	22	5%	1/16W
R748	1-216-833-11	METAL CHIP	10K	5%	1/16W
R751	1-216-821-11	METAL CHIP	1K	5%	1/16W
R752	1-216-821-11	METAL CHIP	1K	5%	1/16W
R755	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R757	1-216-864-11	METAL CHIP	0	5%	1/16W
R758	1-216-864-11	METAL CHIP	0	5%	1/16W
R801	1-216-841-11	METAL CHIP	47K	5%	1/16W
R802	1-216-841-11	METAL CHIP	47K	5%	1/16W
R803	1-216-841-11	METAL CHIP	47K	5%	1/16W
R804	1-216-841-11	METAL CHIP	47K	5%	1/16W
R805	1-216-840-11	METAL CHIP	39K	5%	1/16W
R806	1-216-840-11	METAL CHIP	39K	5%	1/16W
R807	1-216-835-11	METAL CHIP	15K	5%	1/16W
R808	1-216-835-11	METAL CHIP	15K	5%	1/16W
R809	1-216-844-11	METAL CHIP	82K	5%	1/16W
R810	1-216-844-11	METAL CHIP	82K	5%	1/16W
R811	1-218-907-11	RES,CHIP	330K	0.50%	1/16W
R812	1-218-895-11	RES,CHIP	100K	0.50%	1/16W
R813	1-218-895-11	RES,CHIP	100K	0.50%	1/16W
R814	1-218-907-11	RES,CHIP	330K	0.50%	1/16W
R815	1-216-836-11	METAL CHIP	18K	5%	1/16W
R816	1-216-845-11	METAL CHIP	100K	5%	1/16W
R817	1-216-852-11	METAL CHIP	390K	5%	1/16W
R818	1-216-852-11	METAL CHIP	390K	5%	1/16W
R819	1-216-849-11	METAL CHIP	220K	5%	1/16W
R820	1-216-851-11	METAL CHIP	330K	5%	1/16W
R821	1-216-840-11	METAL CHIP	39K	5%	1/16W
R822	1-216-845-11	METAL CHIP	100K	5%	1/16W
R823	1-216-833-11	METAL CHIP	10K	5%	1/16W
R824	1-216-833-11	METAL CHIP	10K	5%	1/16W
R825	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R826	1-216-830-11	METAL CHIP	5.6K	5%	1/16W

	Ref. No.	Part No.	Description			Remark
	R827	1-216-851-11	METAL CHIP	330K	5%	1/16W
	R828	1-216-837-11	METAL CHIP	22K	5%	1/16W
	R829	1-216-837-11	METAL CHIP	22K	5%	1/16W
	R831	1-216-833-11	METAL CHIP	10K	5%	1/16W
	R832	1-216-833-11	METAL CHIP	10K	5%	1/16W
	R834	1-216-847-11	METAL CHIP	150K	5%	1/16W
	R835	1-216-847-11	METAL CHIP	150K	5%	1/16W
	R836	1-216-847-11	METAL CHIP	150K	5%	1/16W
	R837	1-216-844-11	METAL CHIP	82K	5%	1/16W
	R838	1-216-848-11	METAL CHIP	180K	5%	1/16W
	R839	1-216-848-11	METAL CHIP	180K	5%	1/16W
	R840	1-216-848-11	METAL CHIP	180K	5%	1/16W
	R841	1-216-843-11	METAL CHIP	68K	5%	1/16W
	R842	1-216-844-11	METAL CHIP	82K	5%	1/16W
	R843	1-216-844-11	METAL CHIP	82K	5%	1/16W
	R844	1-216-843-11	METAL CHIP	68K	5%	1/16W
	R845	1-216-843-11	METAL CHIP	68K	5%	1/16W
	R846	1-216-841-11	METAL CHIP	47K	5%	1/16W
	R847	1-216-296-91	SHORT	0		
	R851	1-216-833-11	METAL CHIP	10K	5%	1/16W
	R852	1-216-833-11	METAL CHIP	10K	5%	1/16W
	R853	1-216-833-11	METAL CHIP	10K	5%	1/16W
	R854	1-216-833-11	METAL CHIP	10K	5%	1/16W
	R855	1-216-834-11	METAL CHIP	12K	5%	1/16W
	R856	1-216-836-11	METAL CHIP	18K	5%	1/16W
	R857	1-218-899-11	RES,CHIP	150K	0.50%	1/16W
	R858	1-218-899-11	RES,CHIP	150K	0.50%	1/16W
	R859	1-218-889-11	RES,CHIP	56K	0.50%	1/16W
	R860	1-218-889-11	RES,CHIP	56K	0.50%	1/16W
	R861	1-216-296-91	SHORT	0		
	R862	1-216-864-11	METAL CHIP	0	5%	1/16W
	R863	1-216-864-11	METAL CHIP	0	5%	1/16W
	R864	1-216-138-00	METAL CHIP	3.3	5%	1/8W
	R865	1-216-833-11	METAL CHIP	10K	5%	1/16W
	R866	1-216-833-11	METAL CHIP	10K	5%	1/16W
	R867	1-216-833-11	METAL CHIP	10K	5%	1/16W
	R868	1-216-833-11	METAL CHIP	10K	5%	1/16W
	R869	1-216-833-11	METAL CHIP	10K	5%	1/16W
	R870	1-216-815-11	METAL CHIP	330	5%	1/16W
	R871	1-216-817-11	METAL CHIP	470	5%	1/16W
	R872	1-216-815-11	METAL CHIP	330	5%	1/16W
	R873	1-216-821-11	METAL CHIP	1K	5%	1/16W
	R909	1-216-809-11	METAL CHIP	100	5%	1/16W (S530D/S550D/S705D)
	R912	1-216-809-11	METAL CHIP	100	5%	1/16W (S530D/S550D/S705D)
	R915	1-216-809-11	METAL CHIP	100	5%	1/16W
	R918	1-216-809-11	METAL CHIP	100	5%	1/16W (S530D/S550D/S705D)
			< CONPOSITION CIRCUIT BLOCK >			
*	RB201	1-233-270-11	NETWORK, RES (8 GANG) 10K			
*	RB202	1-233-270-11	NETWORK, RES (8 GANG) 10K			
*	RB203	1-233-270-11	NETWORK, RES (8 GANG) 10K			
*	RB204	1-233-270-11	NETWORK, RES (8 GANG) 10K			
*	RB402	1-233-270-11	NETWORK, RES (8 GANG) 10K			
*	RB601	1-233-270-11	NETWORK, RES (8 GANG) 10K			
			< VARIABLE RESISTOR >			
	RV401	1-223-583-11	RES, ADJ, CARBON 1K			

	Ref. No.	Part No.	Description	Remark
			< VIBRATOR >	
	X001	1-781-188-21	OSCILLATOR, CRYSTAL (27MHz)	
	X201	1-781-185-21	VIBRATOR, CERAMIC (12.5MHz)	(S330/S530D/S550D)
	X201	1-781-185-11	VIBRATOR, CERAMIC (12.5MHz) (S705D)	

*		A-6066-012-A	MS-29 BOARD, COMPLETE *********************	(Ref.No. 3,000 Series)
			< CONNECTOR >	
	CN001	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P	
			< SWITCH >	
	S001	1-771-562-11	SWITCH, LEVER (TRAY SENSOR)	
	S002	1-762-386-11	SWITCH, PUSH (CHUCK SENSOR)	

*		1-468-359-21	POWER BLOCK (HS-030SF) (S530D: E)		
*		1-468-359-11	POWER BLOCK (HS-030SH) (S705D) ***********************		(Ref.No. 6,000 Series)
			< CAPACITOR >		
	C110	9-884-088-01	ELECT	56uF	400V (HS-030SH)
	C110	9-884-093-01	ELECT	220uF	400V (HS-030SF)
	C131	1-126-964-11	ELECT	10uF	50V
	C132	1-126-960-11	ELECT	1uF	50V
	C186	1-107-967-11	ELECT	1uF	400V
	C211	1-111-087-11	ELECT	330uF	35V
	C213	1-126-947-11	ELECT	47uF	35V
	C301	1-126-960-11	ELECT	1uF	50V
	C311	1-111-087-11	ELECT	330uF	35V
	C313	1-126-947-11	ELECT	47uF	35V
	C401	1-126-948-11	ELECT	100uF	35V
	C402	1-126-960-11	ELECT	1uF	50V
	C511	1-126-942-11	ELECT	1000uF	25V
	C512	1-126-947-11	ELECT	47uF	35V
	C611	1-111-090-11	ELECT	560uF	35V
	C613	1-126-947-11	ELECT	47uF	35V
			< DIODE >		
	D101	9-884-089-01	DIODE	S1WBA60	
	D102	8-719-160-68	DIODE	RD18FB2	
	D104	8-719-109-63	DIODE	RD3.0ESB2 (HS-030SF)	
	D104	8-719-109-57	DIODE	RD2.4ESB2 (HS-030SH)	
	D133	8-719-109-60	DIODE	RD2.7ESB2	
	D182	8-719-109-60	DIODE	RD2.7ESB2	
	D184	9-880-435-01	DIODE	D1N60	
	D185	8-719-160-68	DIODE	RD18FB2	
	D211	8-719-027-43	DIODE	S2L20U	
	D212	8-719-160-78	DIODE	RD24FB2	
	D311	8-719-200-59	DIODE	21DQ04	
	D401	8-719-210-21	DIODE	11EQS04	
	D402	8-719-110-02	DIODE	RD7.5ESB1	
	D611	8-719-500-50	DIODE	D3S4M	

POWER BLOCK RY-12

Ref. No.	Part No.	Description	Remark
		< FUSE >	
⚠F101	1-532-503-31	FUSE (1.6A/250V)	
		< IC LINK >	
⚠P211	1-533-588-11	IC LINK 500mA	
⚠P311	1-533-593-11	IC LINK 2A	
⚠P511	1-533-589-11	IC LINK 750mA	
⚠P611	9-884-090-01	IC LINK 1.5A	
		< PHOTO COUPLER >	
⚠PC101	8-749-010-59	PHOTO COUPLER TLP721F	
⚠PC102	8-749-010-59	PHOTO COUPLER TLP721F	
⚠PC103	8-749-010-59	PHOTO COUPLER TLP721F	
		< TRANSISTOR >	
Q101	9-880-450-01	TRANSISTOR 2SK2333	
Q102	8-729-023-98	TRANSISTOR 2SC3377	
Q103	9-880-450-01	TRANSISTOR 2SK2333	
Q131	8-729-023-98	TRANSISTOR 2SC3377	
Q181	8-729-046-40	TRANSISTOR 2SK2663	
Q182	8-729-023-98	TRANSISTOR 2SC3377	
Q183	8-729-046-40	TRANSISTOR 2SK2663	
		< RESISTOR >	
R152	1-219-121-21	FUSIBLE 0.22	1/4W F
		< TRANSFORMER >	
⚠T101	9-884-094-01	TRANSFORMER OM-98023 (HS-030SF)	
⚠T101	9-884-091-01	TRANSFORMER OM-98024 (HS-030SH)	
⚠T102	9-884-095-01	TRANSFORMER OM-98059 (HS-030SF)	
⚠T102	9-884-092-01	TRANSFORMER OM-98060 (HS-030SH)	

Ref. No.	Part No.	Description	Remark
*	1-468-358-21	POWER BLOCK (SRV902UC)	
		(S330/S530D: US, Canadian/S550D)	
		***********************	
		(Ref.No. 7,000 Series)	
		< CAPACITOR >	
C108	9-884-071-01	ELECT 220uF	200V
C111	1-126-963-11	ELECT 4.7uF	50V
C201	1-111-041-11	ELECT 1000uF	16V
C202	1-126-933-11	ELECT 100uF	16V
C203	9-884-075-01	ELECT 1000uF	10V
C204	1-126-933-11	ELECT 100uF	16V
C206	9-884-076-01	ELECT 2200uF	10V
C207	1-126-933-11	ELECT 100uF	16V
C208	9-884-077-01	ELECT 470uF	16V
C209	1-126-933-11	ELECT 100uF	16V
C210	1-126-933-11	ELECT 100uF	16V
C211	1-126-933-11	ELECT 100uF	16V
		< DIODE >	
D101	8-719-904-05	DIODE IN4005	
D102	8-719-904-05	DIODE IN4005	
D103	8-719-904-05	DIODE IN4005	
D104	8-719-904-05	DIODE IN4005	
D105	8-719-059-27	DIODE P6KE150	
D106	8-719-052-58	DIODE AG01A	
D107	8-719-059-27	DIODE 1SS119	
D108	8-719-981-98	DIODE MTZJ3.0	
D109	8-719-904-05	DIODE IN4005	
D110	8-719-904-05	DIODE IN4005	
D121	8-719-981-98	DIODE MTZJ3.0	
D122	8-719-059-27	DIODE 1SS119	
D201	8-719-052-74	DIODE FMX-12S	
D202	8-719-907-30	DIODE ERB84-009	
D203	8-719-052-57	DIODE 31DQ04	
D204	8-719-059-45	DIODE AU02Z	
D205	9-884-074-01	DIODE MA2300	
D206	8-719-043-74	DIODE AK04	
D208	8-719-921-50	DIODE MTZJ6.2	
		< FUSE >	
⚠F101	1-533-296-11	FUSE (2A/125V)	
		< IC >	
IC201	8-759-420-19	IC AN1431	
IC202	8-759-420-19	IC AN1431	
		< PHOTO COUPLER >	
⚠PC101	8-749-014-24	PHOTO COUPLER ON3131	
⚠PC102	8-749-014-24	PHOTO COUPLER ON3131	
⚠PC121	8-749-014-24	PHOTO COUPLER ON3131	
		< IC LINK >	
⚠PS201	1-553-558-11	IC LINK 500mA	
⚠PS202	1-553-590-11	IC LINK 1A	
⚠PS203	1-553-593-11	IC LINK 2A	
⚠PS204	1-553-589-11	IC LINK 750mA	
		< TRANSISTOR >	
Q101	8-729-905-71	TRANSISTOR 2SC4056	
Q102	8-729-012-31	TRANSISTOR 2SC4040	
Q121	8-729-047-03	TRANSISTOR 2SK2177	
Q122	8-729-925-16	TRANSISTOR 2SC1740S	
Q201	8-729-422-72	TRANSISTOR UN4211	
		< RESISTOR >	
R121	9-884-072-01	CARBON 10	1/4W F
R129	9-884-073-01	CARBON 100	1/4W F
		< TRANSFORMER >	
⚠T101	9-884-069-01	TRANSFORMER ETS28AE2G5AC	
⚠T102	9-884-070-01	TRANSFORMER ETS19AB1B6AG	

Ref. No.	Part No.	Description	Remark
*	A-6065-255-A	RY-12 BOARD, COMPLETE (S705D)	
		*********************	
		(Ref.No. 3,000 Series)	
		< CONNECTOR >	
* CN101	1-580-230-21	PIN, CONNECTOR (PC BOARD) 2P	
* CN201	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
* CN202	1-564-001-11	PIN, CONNECTOR 2P	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D101	8-719-911-19	DIODE 1SS119			
		< RELAY >			
⚠RY101	1-755-318-11	RELAY, POWER			

Ref. No.	Part No.	Description			Remark
*	A-6065-243-A	SW-315 BOARD, COMPLETE (S705D)			
*	A-6065-221-A	SW-317 BOARD, COMPLETE (S530D/S550D)			
		************************			
					(Ref.No. 4,000 Series)
		< CONNECTOR >			
CN099	1-785-539-11	CONNECTOR, BOARD TO BOARD 4P			
		< DIODE >			
D098	8-719-056-06	DIODE SLR-342DCT31 (VES) (S530D)			
D098	8-719-056-06	DIODE SLR-342DCT31 (VIRTUAL 3D SURROUND) (S550D/S705D)			
		< TRANSISTOR >			
Q098	8-729-421-22	TRANSISTOR UN2211			
		< RESISTOR >			
R098	1-216-041-00	METAL CHIP	470	5%	1/10W
		< SWITCH >			
S098	1-771-349-21	SWITCH, KEYBOARD (VES) (S530D)			
S098	1-771-349-21	SWITCH, KEYBOARD (VIRTUAL 3D SURROUND) (S550D/S705D)			

Ref. No.	Part No.	Description			Remark
*	A-6065-214-A	TK-51 BOARD, COMPLETE			
		*********************			
					(Ref.No. 2,000 Series)
		< CAPACITOR >			
C004	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C005	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C006	1-124-779-00	ELECT CHIP	10uF	20%	16V
C007	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C008	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C009	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C010	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C011	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C012	1-124-779-00	ELECT CHIP	10uF	20%	16V
C013	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C014	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C015	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C016	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C017	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V
C018	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C019	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V
C020	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C021	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C022	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C023	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C024	1-164-730-11	CERAMIC CHIP	0.0012uF	10%	50V
C025	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C026	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C027	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C028	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C029	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C030	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C031	1-124-779-00	ELECT CHIP	10uF	20%	16V
C032	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C033	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C034	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C035	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C036	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C037	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C038	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C039	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C040	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C041	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
		< CONNECTOR >			
CN001	1-785-700-21	CONNECTOR, FFC/FPC (ZIF) 23P			
CN002	1-566-529-11	CONNECTOR, FPC (ZIF) 13P			
CN003	1-785-699-21	CONNECTOR, FFC/FPC 18P			
CN004	1-785-699-21	CONNECTOR, FFC/FPC 18P			
		< DIODE >			
D003	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC001	8-759-567-24	IC SSI33P3722			
		< COIL >			
L001	1-412-031-11	INDUCTOR CHIP 47uH			
		< TRANSISTOR >			
Q001	8-729-903-46	TRANSISTOR 2SB1132-T100-QR			
Q002	8-729-015-76	TRANSISTOR UN5211-TX			
		< RESISTOR >			
R001	1-216-815-11	METAL CHIP	330	5%	1/16W
R002	1-216-809-11	METAL CHIP	100	5%	1/16W
R003	1-216-809-11	METAL CHIP	100	5%	1/16W
R004	1-216-837-11	METAL CHIP	22K	5%	1/16W
R005	1-216-013-00	METAL CHIP	33	5%	1/10W
R006	1-216-013-00	METAL CHIP	33	5%	1/10W
R007	1-216-841-11	METAL CHIP	47K	5%	1/16W
R008	1-216-797-11	METAL CHIP	10	5%	1/16W
R009	1-216-834-11	METAL CHIP	12K	5%	1/16W
R010	1-216-833-11	METAL CHIP	10K	5%	1/16W
R012	1-216-864-11	METAL CHIP	0	5%	1/16W
R014	1-216-864-11	METAL CHIP	0	5%	1/16W
R015	1-216-833-11	METAL CHIP	10K	5%	1/16W
R016	1-216-833-11	METAL CHIP	10K	5%	1/16W
R017	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R018	1-216-833-11	METAL CHIP	10K	5%	1/16W
R022	1-216-811-11	METAL CHIP	150	5%	1/16W
R023	1-216-820-11	METAL CHIP	820	5%	1/16W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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Ref. No.	Part No.	Description	Remark
R025	1-216-813-11	METAL CHIP 220 5%	1/16W
R026	1-216-864-11	METAL CHIP 0 5%	1/16W

MISCELLANEOUS
****

Ref. No.	Part No.	Description	Remark
115	1-418-097-11	ENCODER, ROTARY (S530D/S550D/S705D)	
117	1-771-564-11	SWITCH, TACTILE (S330)	
127	1-790-167-11	CABLE, FLEXIBLE FLAT (FMF-35)	
153	1-790-166-11	CABLE, FLEXIBLE FLAT (FMT-25)	
154	1-790-163-11	CABLE, FLEXIBLE FLAT (FMA-7)	
155	1-790-164-11	CABLE, FLEXIBLE FLAT (FMA-8)	(S530D/S550D/S705D)
156	1-790-165-11	CABLE, FLEXIBLE FLAT (FMA-9)	(S530D/S550D/S705D)
⚠161	1-769-744-91	CORD, POWER (E, Hong Kong, Singapore)	
⚠161	1-783-531-31	CORD, POWER (US, Canadian)	
⚠220	8-820-081-03	OPTICAL PICK-UP KHM-220AAA/J1RP	
M001	1-541-632-11	MOTOR, DC (LOADING)	
⚠T901	1-431-175-21	TRANSFORMER, POWER (S705D)	

****
HARDWARE LIST
****

Ref. No.	Part No.	Description	Remark
#1	7-685-885-09	SCREW +BVTT 4X16 (S) (S705D)	
#2	7-621-775-10	SCREW +B 2.6X4	
#3	7-685-536-19	SCREW +BTP 2.6X12 TYPE2 N-S	

ACCESSORIES & PACKING MATERIALS
****

Ref. No.	Part No.	Description	Remark
	1-418-320-21	COMMANDER, STANDARD (RMT-D108A)	(S530D)
	1-418-320-41	COMMANDER, STANDARD (RMT-D109A)	(S330)
	1-418-321-11	COMMANDER, STANDARD (RMT-D111A)	(S550D)
	1-418-321-61	COMMANDER, STANDARD (RMT-D111E/N)	(S705D: Hong Kong)
	1-418-321-71	COMMANDER, STANDARD (RMT-D111E/H)	(S705D: Singapore)
⚠	1-569-008-21	ADAPTOR, CONVERSION 2P (E)	
	1-575-334-41	CORD, CONNECTION (STEREO AV CABLE 1.5m)	(S705D)
	1-575-334-11	CORD, CONNECTION (STEREO AV CABLE 1.5m)	(S530: E)
	1-575-335-21	CORD, CONNECTION (S-VIDEO CABLE 1.5m)	(S330/S530D/S550D)
⚠	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P	(Hong Kong)
	1-776-078-31	CORD, CONNECTION (S-VIDEO CABLE 1.5m)	(S705D)
	1-782-997-11	CORD, CONNECTION (STEREO AV S-LINK CABLE 1.5m)	(US, Canadian)
	3-053-633-01	COVER, BATTERY (for RMT-D108A/D109A)	(S330/S530D)
	3-055-539-01	COVER, BATTERY (for RMT-D111A/D111E/N/D111E/H)	(S550D/S705D)
	3-865-641-11	MANUAL, INSTRUCTION (ENGLISH)	(S550D: US, Canadian)
	3-865-641-21	MANUAL, INSTRUCTION (FRENCH)	(S550D: Canadian)
	3-865-642-11	MANUAL, INSTRUCTION (ENGLISH)	(S530D: US, Canadian)
	3-865-642-21	MANUAL, INSTRUCTION (FRENCH)	(S530D: Canadian)
	3-865-642-31	MANUAL, INSTRUCTION (ENGLISH, SPANISH, PORTUGUESE)	(S530D: E)
	3-866-153-11	MANUAL, INSTRUCTION (ENGLISH, CHINESE)	(S705D)
	3-866-504-11	MANUAL, INSTRUCTION (ENGLISH)	(S330)
	3-866-504-21	MANUAL, INSTRUCTION (FRENCH)	(S330: Canadian)
	3-866-506-11	MANUAL, INSTRUCTION (ENGLISH)	(S330: US)
	3-866-506-21	MANUAL, INSTRUCTION (ENGLISH) (FRENCH)	(S330: Canadian)

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